THE UNIVERSITY OF ALBERTA

A STUDY OF KOHLBERG'S THEORY OF MORAL DEVELOPMENT IN THE LIGHT OF INFORMATION PROCESSING AND TRAIT FACTOR THEORIES OF PERSONALITY

by

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled "A Study of Kohlberg's Theory of Moral Development in the Light of Information Processing and Trait Factor Theories of Personality," submitted by Eugene Joseph Cavanagh in partial fulfilment of the requirements for the degree of Doctor of Philosophy in Counselling Psychology.

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ABSTRACT

Sampling from a population of students from a small liberal arts college and a community college, this investigation was undertaken in an attempt to answer the general research question: Can a study of the relationship of personality characteristics of persons at different stages of moral development help increase the understanding of these stages or suggest areas of further investigation which might promise such added understanding? Three aspects of this question were studied: the relationship of the cognitive factor of integrative complexity as described by Schroder to Kohlberg's stages of moral development; the relationship of non-cognitive factors described by Cattell's source traits to the Kohlberg stages; and the interrelationship between integrative complexity, Cattell's source traits and the stages of moral development.

Analysis of complexity and Kohlberg scores revealed that, contrary to prediction, a high complexity score was not a precondition for achieving the higher (stage 4) Kohlberg score. It was concluded that integrative complexity did not relate to maturity of moral judgment in the same way that other cognitive factors have.

Groups divided according to scores on the Kohlberg instrument were compared on the basis of Cattell's source traits. Stage 4 subjects displayed more internal autonomy of thought than did Stage 3 subjects. Traits relating to group dependency and those descriptive of "character" did not differentiate groups.

Low complexity subjects were divided into groups based on moral maturity scores and compared. Subjects scoring in the higher

Kohlberg stage displayed not only greater autonomy of thought but more sensitivity and self-sufficiency than lower stage subjects. Subjects scoring high in moral maturity were divided into groups of either high or low complexity and compared. Low complexity subjects displayed significantly more guilt proneness and tenseness than high complexity subjects.

Results were discussed with reference to implications concerning the theoretical characteristics of the Kohlberg stages and to possible applications for counseling and moral education.

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CHAPTER I

INTRODUCTION

Importance of the Study

Because morality is an area which touches society so pervasively, we must be sensitive to the presuppositions of programs geared to engineer change in moral behavior. Since Lawrence Kohlberg's theory (1964a, 1966, 1967, 1968, 1971a, 1971b) has led to the institution of such programs (Blatt, 1970; Blatt and Kohlberg, 1971), attempts at a broader understanding of his theory of the development of moral judgment seem to be warranted and necessary.

Kohlberg's theory is appealing for several reasons. First, because intuitively "it makes sense". In other words, it fits the expectations and appeals to the logic which western tradition has fashioned through the centuries. Philosophy, religion and psychology have repeatedly ranked sound reason, personal autonomy and empathic capacity high in any hierarchy of traits describing mental or moral health. Kohlberg's theory, describing as it does the evolution of these processes as manifested in structural changes in moral judgment, is in harmony with root insights of our value tradition.

The traditional nature of Kohlberg's theory is not surprising when we consider the history of its derivation -- its pedigree, so to speak. Kohlberg (1971a) acknowledges the influence of the thought of Kant, Dewey and Piaget on his own. Kant's categories of reason, Dewey's progressivism and Piaget's cognitive-developmental stage

theory had an influence on Kohlberg's construing of moral judgment as developing as structured wholes through stages. A theory derived from such a respected tradition deserves considered attention.

But, beyond these extrinsic considerations, Kohlberg's theory deserves attention because of the empirical base which is developing around it. Kohlberg's original work, a longitudinal study of 15 years, was devoted to observing age-related change in the structure of moral judgment. After this, repeated studies by Kohlberg and his colleagues (Turiel, 1966; Rest, 1968; Rest, Turiel and Kohlberg, 1969; Rest, 1971) have tended to confirm the appearance of invariant stages of moral judgment. Other research has examined the effect of environmental influences on stage development (Holstein, 1968; Bar-Yam and Kohlberg, 1971). Still other studies have attempted to evaluate the relationship between these stages of ethical thought and its translation into ethical behavior (Milgram, 1963; Haan, Smith and Block, 1968). Of all these areas of research, the most convincing is that which has established the existence and the invariant nature of the stages of moral development.

Need for the Study

Yet, despite these credentials, extrinsic and intrinsic, Kohlberg's work does not go uncriticized. Alston (1971), commenting on Kohlberg's theory, suggests several shortcomings. He notes, for instance, that comprehension of a moral situation does not guarantee action which coincides with that comprehension and suggests that other criteria besides the achievement of cognitive stages of moral judgment

will be needed if moral behavior is to be predicted as well as moral thought. Kohlberg's theory and evidence, says Alston, "do nothing to show that affect and habit are not also important in morality in ways which Kohlberg seems to deny." (ibid., p. 284) This criticism is all the stronger in view of Aronfreed's assertion that the nature and strength of the affective components of values and not merely their cognitive components influence moral behavior. (1971)

Peters (1971) pursues a line of disagreement with Kohlberg similar to Alston's. First he discusses the importance of the consideration of habit-formation and the acquisition of traits of character relative to moral development, a consideration which Kohlberg feels contributes little to understanding moral development. More importantly, Peters distinguishes between having character and possessing character traits. The former refers to the possession of qualities such as honesty, courage and the like and describes what we regularly mean when we use the word character. The latter seems to refer to what we ordinarily call personality traits; namely, dominant characteristics which tend to make an individual's behavior pattern predictable. After making this distinction, Peters goes on to suggest strongly that investigation into both traits of character and personality traits might provide a needed supplement to the cognitive-developmental school of moral development which Kohlberg represents. Nor is Peters' criticism out of line with the history of assessment of moral development up to now. The work of Hartshorne and May (1930), Havighurst and Taba (1949), MacRae (1954), Peck and Havighurst (1960), Loughran (1967), Grim, Kohlberg and White (1968), Bull (1969), Sulli-

van, McCullough and Stager (1970) and Krebs (1971) all have validated a relationship between personality characteristics and level of moral development.

Indeed, the need for a supplement to the Kohlberg theory is also suggested by some of the findings of research done to this point by the Kohlberg school, most notably by Kohlberg and Kramer (1969). They found, for instance, that persons do not necessarily advance through the various stages, but that adults tend to "stabilize" at a level of functional morality. They attribute this stabilization, which Graham (1972) prefers to call adjustment rather than development, to the adult's response to his or her social sex role, explaining that stabilization is "more a matter of increased congruence between belief and social role than of novel integration of experience." (Kohlberg and Kramer, 1969, p. 108) The implication here is that other factors besides stage development may play a part in influencing the level of operation of moral judgment. Indeed, it would seem logical that factors which have been traditionally considered to affect personal adjustment could be thought of as operative in the process of stabilization of moral judgment.

Other findings in the Kohlberg research leave room for speculation concerning the influence of non-cognitive factors on moral development. Kohlberg and DeVries (1971) found that relations between IQ and moral development are not necessarily mutual. While high levels of moral development require a higher IQ than the lower stages do, a person can possess high intellectual ability without achieving the higher

Kohlberg stages. Kohlberg (1971a) reports a similar lack of isomorphism between stages of moral development and Piagetian stages of logico-mathematical reasoning. These discrepancies are attributed to the difference in opportunities individuals have had for social role taking. This explanation is a plausible one. But might we not reasonably ask whether socially learned or dynamic traits could also enter into an explanation of this phenomenon? Would, for instance, a person's general preference for aloofness affect moral development because it would tend to keep him from seeking out group participation, a precondition according to Kohlberg (1969) for development of moral judgment? Or could the manner in which the person functions in groups have a similar influence on moral development?

Purpose of the Study

In view of the above discussion, it seems, then, that a study of personality correlates would be appropriate in an attempt to widen the scope of studies of the Kohlberg stages. It becomes interesting, for instance, to see how moral development relates to the total personality pattern of the individual. Are the Kohlberg levels and stages described by particular personality patterns? Does an investigation of this relationship give us a wider perspective for understanding the development of stages and some insight into why some persons advance further than others along the moral developmental continuum? Can we find some additional understanding of the lack of isomorphism which sometimes exists between levels of cognitive functioning and level of moral development? Because of the limitations

inherent in the measurement of personality and in quasi-experimental research, these questions will not be answered on a causal level. The study seems justified, however, because it may uncover relationships between personality factors and levels of moral development which will be significant enough to suggest directions for further investigation into the nature of moral development and the conditions which foster it. Such considerations could lead to practical implications in designing programs aimed at moral development.

CHAPTER II

THEORETICAL ORIENTATION AND REVIEW OF RELEVANT LITERATURE

Cognitive Developmental Theories of Moral Development

Influenced as he was by the philosophies of Kant and Dewey, who viewed man as actively informing reality with mental constructs, it is not surprising that Kohlberg finds himself dissatisfied with interpretations of moral development which appear to make of conscience a mere internalization of external criteria and of the person a mere product of his environment, conclusions to which he feels psychoanalytic and learning theories tend to lead. In the developmental psychology of Jean Piaget, however, Kohlberg found a satisfactory model for the establishment of a theory of moral development. It seems appropriate, therefore, to precede a description of Kohlberg's theory with a brief review of Piaget's.

Moral Development According to Jean Piaget

"Logic is the morality of thought just as morality is the logic of action." (Piaget, 1965, p. 404) This quotation in a way epitomizes Piaget's theory of moral development. It will be recalled from studying his theory of cognitive development, that Piaget proposes the genesis of functions through stages. These stages are age-related but not age-determined, and so what distinguishes one stage from the other is the process which is used. Piaget's theory of moral development parallels his description of stages of cognitive development.

Piaget (ibid., pp. 314-325) summarizes these stages and focuses in on them as they relate to the idea of justice. The first

stage lasts up to the age of 7-8, "during which justice is subordinated to adult authority." A second stage appears approximately between the ages of 8-11 and is described as a period of "progressive equalitarianism." The final stage appears around the ages of 11-12. During this period, "purely equalitarian justice is tempered by considerations of equity."

Before age 7, according to Piaget, the child does not differentiate between the ideas just/unjust and duty/disobedience: "Whatever conforms to the dictates of adult authority is just." (ibid., p. 314) Justice is retributive; punishment is legitimate and seen as "the essence of morality," e.g., if lying were not punished it would be allowable. Actually, in this stage authority is the operative notion rather than justice. During this stage it is forbidden to lie to an adult but all right to lie to others of the same age. As in the preoperational cognitive stages of development, conservation has not been established. Only one dimension is seen and consequently, when a transformation in the situation occurs (e.g., the parents are not around), the child does not understand that the same rule applies any more than he understands that the same amount of matter is present when the plasticene ball has been manipulated.

At about 7 or 8, more autonomy appears along with a preference for equality over authority as a basis for judgment. Thus, at this age, an idea of justice emerges. Punishment is no longer accepted as expiatory as it was in the earlier stage but is seen in the context of reciprocity. Moral action appears to be entered into less because of

reward-punishment and more because it is desirable for its own sake. Justice changes from retributive to distributive. The importance of preserving equality rather than mere retaliation for retaliation's sake begins to establish itself. "Morality of obedience" is replaced by a "morality of reciprocity". At this stage, the justice is "independent of the instructions and orders of adults" and appears in the transactions between playmates. (Piaget, 1962) It is at this stage that Piaget would hypothesize the appearance of an affective operation equivalent to the cognitive operation; namely, the will.

> If morality in the form of the coordination of values is comparable to a logical 'grouping', then it is also true that interpersonal feelings give rise to a kind of operation. At first glance, it seems that the affective life is purely intuitive and that its spontaneity excludes anything approaching an intellectual operation. In reality this romantic notion is true only of early childhood, when impulsivity precludes all directedness of thought as well as of the emotions. By contrast, to the extent that the emotions become organized, they emerge as regulations whose final form of equilibrium is none other than the will. Thus, will is the true affective equivalent of the operation in reason. (Piaget, 1967, p. 58)

Whereas the second stage is characterized by an insistence on identical reciprocity, the stage which emerges around 11-12 years, while still looking for equity, can find a place for an element of relativity within his idea of justice. Particularities modify situations: the same punishment cannot be meted out if extenuating circumstances exist; a law is not identical for all (e.g., age must be taken into account). Here we can see a clear parallel with the formal operational stage of cognitive development where the youth is capable of

including in his reasoning the possible and probable and not just the concrete.

As we look at the development of the idea of justice through these three stages, it is interesting to note how individual growth is marked by the waning of egocentricity and the waxing of autonomy -- a move from selfishness to self government. As in cognitive development, the child at the beginning of moral development does not distinguish the objective from the subjective. He begins

> by understanding and feeling everything through the medium of himself before distinguishing what belongs to things and other people from what is the result of his own particular intellectual and affective perspective. (Piaget, 1965, p. 407)

This behavior is necessarily egocentric and tends to be characterized by anomie since it is not corrected through contact with the evaluations and judgments of others. Even the interaction with authority seems more likely to consolidate egocentrism than to correct it. Since the child's world of values at this stage is tied up with a unilateral respect for the adult, "the self's good pleasure is simply replaced by the good pleasure of a supreme authority." (ibid., p. 409) Thus cooperation leads to the recognition of the principles of formal logic and "above all, to a conscious realization of the logic of relations." (ibid., p. 411) By developing the power of reflection and objective verification, the child begins to construct values. As Piaget puts it elsewhere (1967, pp. 57-58):

> The mutual respect that gradually becomes differentiated from unilateral respect leads to a new organization of moral values. Its principal characteristic is that it imputes relative auto-

> nomy to the moral conscience of individuals. From this point of view the moral of cooperation can be considered as a higher form of equilibrium than the moral of simple submission. With respect to the latter, we have spoken about 'intuitive' moral feelings. The organization of moral values that characterizes middle childhood is, by contrast, comparable to logic itself; it is the logic of values or of action among individuals, just as logic is a kind of moral for thought. Honesty, a sense of justice, and reciprocity together form a rational system of personal values. Without exaggeration this system can be compared to the 'groupings' of relations or concepts that characterize logic, the only difference being that here values are grouped according to a scale rather than by objective relationships.

As we shall see, Kohlberg's theory draws heavily on Piaget's theory of moral development. Stages are described as parallel to one another. As we proceed, we will allude to some of the differences.

Kohlberg's Theory of Moral Development

Lawrence Kohlberg (1963), as a result of a longitudinal study which covered a span of fifteen years, proposed a theory of moral development which, like Piaget's, classifies moral development into three age related but not age specific levels. The first level Kohlberg calls "the pre-conventional or pre-moral level". At this level we find children from age 4 to 10. They are characterized by their interpretation of the labels "good and "bad in terms of physical consequences or in terms of the physical power of those who lay down the rules. There is no real conception of right. Having a right is equated with being right, obeying authority. As with the other levels Kohlberg proposes, this first level is divided into two stages. Stage 1 children reflect "cognitively primi-

tive value assumptions". (ibid., p. 20) Unlike Piaget's (1948) interpretation of the very young child's behavior, Kohlberg sees the Stage 1 child behaving as he does, not out of any reverence for the adult "World Order" but out of a "realistic-hedonistic desire to avoid punishment". (Kohlberg, op. cit., p. 20) Thus Kohlberg would see the Stage 1 child as coinciding descriptively with Piaget's heteronomus (Stage 1) child but would interpret the behavior differently. The Stage 2 child, with a "morality of need and reciprocity" reflects both cognitive advance and a firmer basis of judgments than does the Stage 1. This child, like the one in Piaget's Stage II, tends to be more autonomous. This, however, is based not on mutual respect but on a pragmatic, physical way of satisfying his own needs and sometimes someone else's.

Level Two is described as conventional with the term role-conformity sometimes added. Moral judgments at this level are

> based on role-taking, on taking the perspective of the other person with legitimate expectations (sic) in the situation, as these expectations form part of a moral order (sic). (ibid, p. 24)

This generalization is particularized by citing some of the cognitive and motivational characteristics which Kohlberg (ibid., p. 26) found to emerge at this level. Good is defined in terms of persons, roles in terms of moral virtues. Judgments of moral worth are related to intentionality. The definition of duty goes beyond obedience to service. The person guides himself by anticipated approval or disapproval and can identify with authority and its goals.

As with the previous level, Level Two is broken down into stages. Stage 3 tends to base moral order "on 'natural' or familistic

types of affection and sympathy." This is often called the "good-boy" orientation; i.e., orientation to approval and to pleasing and helping others. Action is evaluated according to the type of motive or person likely to perform the act. Acts are not bad if they are expressions of a "nice" or altruistic motive; they are not good if done for selfish reasons. Circumstances excuse deviant action. Differentiation is made between good motives to which an act is instrumental and human but selfish needs to which the act is instrumental. At this stage anticipation of disapproval of others (actual or hypothetical) motivates action. Disapproval is differentiated from the fear characteristic of the two previous stages. Stage 4 individuals, however, find their definition of moral order related to rules. Orientation is to doing one's duty, showing respect for authority and maintaining the given social order for its own sake. Justice has to do with regard for the rights and expectations of both rule-enforcers and other rule-obeyers. Acts are categorically wrong, regardless of motive or circumstances, if a rule is violated and preseeable harm is done to another. A sense of obligation to rule is differentiated from acting from natural motives. Blame for failure of duty and guilt over concrete harm done to others is highly sensed. Differentiation is made between formal dishonor and informal disapproval on the one hand and between guilt for bad consequences and disapproval on the other.

The final level of development Kohlberg describes as "post-conventional" or autonomous. He calls it the "Morality of Self-accepted Moral Principles". Individuals at this level "accept the possi-

bility of conflict between norms.and. . .attempt something like a rational decision between conflicting norms". (ibid., p. 28) This "post-conventional level" is marked by

> a major thrust towards autonomous moral principles which have validity and application apart from authority of groups or persons who hold them and apart from the individual's identification with those persons or groups. (Kohlberg, 1968, p. 29)

Within this level of morality, Stage 5 individuals turn to the law for definitions of right and wrong. They recognize

> the possibility of conflict between what is rationally 'right' for the individual actor, and what is legally or rationally right for the society. (Kohlberg, 1963, p. 28)

Kohlberg characterizes this stage as possessing "a social contract orientation, generally with legalistic and utilitarian overtones". (Kohlberg, 1968, p. 26)

Stage 6 persons, in contrast, make moral judgments on the basis of "self-chosen ethical principles" which are

> abstract and ethical (the Golden Rule, the categorical imperative, . .not concrete moral rules like the Ten Commandments. . .principles of justice, of the reciprocity and equality of human rights, and of respect for the dignity of human beings as individual persons. (Kohlberg, 1963, p. 26)

Kohlberg sees both stages as being able, as mentioned above, to accept "the possibility of conflict between norms". This is due at least in part to "a cognitive advance in social concepts" and to the achievement of what Piaget describes as the level of formal operations.

> Such a cognitive advance permits a view of normative judgment as deriving from a for-

> mal system derived from a set of agreed-upon assumptions. Any given set of norms or rules is then seen as one of many possibilities, so that the major requirement of normative definition becomes that of clarity and consistency. (ibid., pp. 29-30)

Figure 1 (page 16) depicts Kohlberg's levels and stages of moral development in a schematic form.

It may be seen upon reflection that, according to Kohlberg, advancement through stages reflects movement through more mature stages of moral thought. Maturity here means more structurally adequate or, in Kohlberg's words:

> This greater adequacy of moral judgment is based on criteria more general than those of truth, value or efficiency. These general criteria are the formal criteria which developmental theory holds as defining all mature structures, the criteria of increased differentiation and integration. (1969, p. 184)

For instance, contrary to conventional morality, which continually leads to self-contradiction, principled morality serves to resolve moral conflicts in a stable, consistent way. This is attributable to the differentiated and integrated structure of principled morality.

Just how are these stages of moral development related to other human functions? Kohlberg describes several "components or antecedents" of the stages. His first consideration is the cognitive antecedents. He insists on the distinction between content and form of knowing:

> The psychological assumption that moral development centrallly involves cognitive development is not the assumption that this is an increased 'knowledge' of rules found outside the child in his culture

Figure 1. Kohlberg levels and stages of moral development. (Kohlberg, 1969.)

Level		Stage	
I	Pre-conventional (pre-moral response to rules in terms of physical or hedonistic consequences of action or physical power of those who impose rules.)	1	Obedience-punishment orientation. Egocentric deference to superior power or prestige. Locus of responsibility is external. Physical consequences determine goodness or badness..
		2	Orientation to satisfaction of own needs is what is instrumentally satisfying to self and occasionally to another. Values egotistically perceived. Human relations judged from "marketplace" perspective -- "you scratch my back and I'll scratch yours".
II	Conventional (role conformity in attempt to maintain expectations of family, peers, etc. Loyalty to and identification with groups important)	3	Good-boy orientation. Good behavior is what pleases or helps others and is approved by them. Intentions (meaning well) become important.
		4	Orientation toward authority as expressed in fixed rules. Duty, respect for authority, maintenance of social order for its own sake are valued.
III	Post-conventional (concern with defining self-accepted moral principles apart from supporting authority and identification with group.)	5	Contractual legalistic orientation. An awareness of the importance of personal opinion and value but emphasis is on procedural rules for reaching concensus. More flexibility in changing rules out of rational consideration than stage 4. Outside of the legal realm free agreement and contract is the binding element.
		6	Universal principle orientation. Decisions based on self-chosen ethical principles. These principles are abstract (e.g., the Golden Rule) rather than concrete rules (e.g., Ten Commandments). Operative values are reciprocity of human rights and dignity of the individual.

and its socialization agents. (1971a, p. 185)

In support of this, Kohlberg cites the work of Hartshorne and May (1930) which indicated that most children know the basic moral rules and conventions of our society by the first grade. Thus, Kohlberg is interested not in what the person thinks but in the process of judgment whereby he comes to his conclusions. Judgment for him is "neither the expression of nor description of, emotional or volitional stages" but "a different kind of function with a definite cognitive structure". (Kohlberg, 1971a, p. 185) This structure Kohlberg describes as "the use and interpretation of rules in conflict situations" and "reasons for moral actions". (ibid., p. 185) These cognitive forms develop in the order discussed above. These stages are of invariant sequence and "define 'structured wholes', total ways of thinking, not attitudes toward, particular situations". (ibid., p. 169)

Kohlberg's position is best summarized in his definition of moral judgment:

> Moral judgment is a role-taking process which has a new logical structure at each stage, paralleling Piaget's logical stages, which structure is best formulated as a justice structure which is progressively more comprehensive, differentiated, and equilibrated than the prior structure. (ibid., p. 195)

In discussing the cognitive antecedents of moral judgment, Kohlberg emphasizes "a one-to-one parallelism or isomorphism (underlining his) between cognitive and moral stages. . . ." (ibid., p. 187) The cognitive stages to which he refers are the Piagetian stages of logico-mathematical thinking. Kohlberg's hypothesis is that

> moral judgment has a characteristic form at a given stage, and that this form is parallel to the form of intellectual judgment at a corresponding stage. (ibid.)

This isomorphism, as we have mentioned before, "does not mean high or perfect empirical correlation between the two". (ibid.) Though he would predict that persons

> at a given moral stage will pass the equivalent-stage cognitive task, . . not all. . .at the given cognitive stage will pass the equivalent moral task. (ibid.)

Thus Kohlberg concludes that the isomorphism which exists between cognitive and moral stages does not imply simply the application of a level of intelligence to moral problems. Otherwise, it cannot be explained why persons of a high level of intelligence and cognitive development do not achieve a similarly high level of development of moral judgment. Rather, it is his position that, though logical stages must precede moral stages because they are more general, still moral development proceeds in its own sequential stages. Hence it is hypothetically conceivable that a person

> . . .deprived of all moral social stimulation might perhaps develop 'principled' or formal operational, logical thought in adolescence, but would still have to go through all the stages of morality before developing moral principles. . . . (ibid., p. 187)

Indeed, the hypothesis that high levels of cognitive and moral development need not exist simultaneously in a given individual can be seen in the instance of the sociopath.

The second set of antecedents to moral judgment to be con-

sidered is those which fall into the affective volitional category. Contrary to "irrational emotive theories of moral development", Kohlberg espouses the cognitive-developmental view that

> . . .'cognition' and 'affect' are different aspects of, or perspectives on, the same mental events; that all mental events have both cognitive and affective aspects; and that the development of mental dispositions reflects structural changes recognizable in both cognitive and affective perspectives. (1969, pp. 188-189)

The example is cited of two adolescents who are thinking of stealing. Both feel anxiety. One, functioning at Stage 2, views the feeling as "being chicken", ignores it and decides to go ahead with the theft. The other, operating at Stage 4, interprets the feeling as conscience and decides not to follow his inclination. Thus the same basic emotion is felt but its meaning varies with the perspective the individual has in perceiving it.

A third antecedent of moral judgment development is the social role-taking component. By social role-taking Kohlberg means

> . . .the distinctively human structuring of action and thought by role-taking, by the tendency to react to others as like the self and to react to the self's behavior from the other's point of view. (1968, p. 190)

As thus defined, social role-taking appears to have two distinct components. One is a capacity to feel for another or sympathy. The second is the ability to enter objectively into the other's frame of reference. Together these might be described as a capacity for empathy.

A significant variable related to this component is the social environmental factor which Kohlberg describes as "amount of opportuni-

ties for role taking". (ibid.) Whether these opportunities need arise from peer interaction, participation in the larger institution, or family participation, Kohlberg intimates, depends on whether one is a disciple of Piaget (1965) or Mead (1934) or Baldwin (1897). Whichever camp one opts for, Kohlberg is of the opinion that what makes the difference is "not necessarily a warm, loving, identification-inducing environment". (op. cit., p. 191) Membership in a very close-knit, warm family does not guarantee social growth in a cognitive-developmental sense, unless it provides forms of participation encouraging role-taking. On the other hand, a less responsive group like a kibbutz may provide more role-taking opportunities, thus fostering greater social growth. (Holstein, 1971; Bar-Yam and Kohlberg, 1971) Indeed, acceptance and warmth is necessary if a person is to feel encouraged to participate in a group. However, what is of primary importance, insists Kohlberg, is opportunity for and active sharing in the group.

The final component of moral judgment is one which Kohlberg views as interlocked with that of role-taking. It is a sense of justice. Here Kohlberg follows Piaget (1965) very closely, arguing that

> . . .just as logic represents an ideal equilibrium of thought operation, justice represents an equilibrium of social interaction, with reciprocity or reversibility being core conditions for both logical and moral equilibrium. (Kohlberg, 1969, p. 194)

The sense of justice progresses through stages from an eye-for-an-eye mentality to the highest level which Kohlberg describes in Tillich's (1966) terms as the idea of justice, with its various forms of equality and liberty, which implies the acknowledgement of every potential person as a person.

Personality Theories

Kohlberg (1969) questions the value of studying socialization in terms of personality theory because these theories describe persons in terms of traits which he claims are seldom age-developmental or longitudinally stable. This is a well made argument. And developmental theories, especially that of Piaget, have added an aspect to the understanding of human functioning that other theories had ignored, much to the limitation of their view of the individual.

However, to discard the value of other theories in understanding the developmental process seems to smack of throwing out the proverbial baby with the bath. For if one takes an interactional view of development one must acknowledge that the total organism responds to experience. Thus each act combines the impression of the present with the learnings of the past and a change in the organism, a new learning, which will affect its response to its next experience. Such a view is also quite in keeping with an S-O-R model of understanding of human behavior.

Even as Kohlberg's theory was reviewed, certain conditions emerged which, although clearly distinct from the developmental process, Kohlberg claims affect it. The importance of cognitive antecedents was cited, for instance. But just what aspects of the cognitive domain affect moral judgment?

One wonders also whether characteristics attributed by Kohlberg to persons functioning at the various stages are reflected in measures

of personality as well as those of development. Are qualities traditionally part of research into the moral domain like ego and superego strength related to Kohlberg's stages? Are other personality traits like shyness, reservedness and sensitivity, qualities which appear related to preconditions of stage development such as frequency of and involvement in group participation, discernible in personality profiles? Can a study of personality traits throw some light on why persons who could be expected, because of their level of cognitive development, to function at a certain Kohlberg level, do not do so?

For these reasons it was decided to investigate both cognitive and trait factors. For reasons which will emerge below, Schroder's theory of information processing and Cattell's trait factor theory were chosen as beginning approaches to this investigation.

Schroder's Theory of Information Processing

Schroder has been influenced by a history of related but distinct investigations into the nature of cognitive functioning and its relationship to human personality and behavior. Interestingly enough, many of these lines of investigation were developing almost simultaneously in the 1940's and 1950's. Most were influenced by the Gestalt movement.

One of these influences was the organismic theory of Kurt Goldstein. The work of Goldstein and Scheerer (1941) with veterans who had sustained brain injuries uncovered interesting clinical observations of the contrast between abstract and concrete behaviors. Per-

sons with certain neurological damage seemed to lose the capacity of behaviors which required the ability for abstract thinking. They found eight characteristics related to this capacity for abstract thought. These are:

1. To detach our ego from the outerworld or from inner experiences.
2. To assume a mental set.
3. To account for acts to oneself; to verbalize the account.
4. To shift reflectively from one aspect of the situation to another.
5. To hold in mind simultaneously various aspects.
6. To grasp the essential of a given whole; to break up a given whole into parts, to isolate and to synthesize them.
7. To abstract common properties reflectively; to form hierarchic concepts.
8. To plan ahead ideationally; to assume an attitude towards the more possible and to think or perform symbolically.

(Goldstein and Scheerer, 1941, p. 4)

Concrete behavior, in contrast, appeared to be better characterized by closeness of responses to immediate reality, demonstrated in such ways as rigid dependence upon the familiar, response to objects in isolation rather than as members of a class, greater concern for detail and the tendency to evaluate objects in terms of personal use rather than grouping by more abstract characteristics such as form, color, material. (ibid., pp. 87-93)

A second and very similar influence on Schroder was the work of Jean Piaget. The description cited above of the qualities of abstract functioning reminds us of Piaget's findings in his study of the development in children both of their concept of reality and of their reasoning processes. Most central to Piaget's theory is his insistance on

the joint influence of external and internal factors on concept formation through the reciprocal processes of assimilation and accommodation. These processes and their interrelationship are succinctly described by Piaget:

> These two aspects of thought are inseparable: thought organizes itself in adapting to objects, and thought structures objects in organizing itself. (Piaget, 1951, p. 186)

These structures develop along a continuum which moves from the pre-operational, almost non-reciprocal, thought of the infant to the highly reflective formal-operational stage achieved in adolescence. The final movement along the continuum of cognitive development, according to Piaget, is the transition during adolescence from logical inference as a set of formal operations or "operations on operations". This implies that the adolescent can think about thought, relate relationships and create thought systems.

Another predominant feature of Piaget's theory which parallels the development of cognitive structure is his observation of a progressive movement from childhood to adulthood away from an autistic and egocentric concept of reality to one in which subject and object are more and more clearly differentiated from one another. Again we see the similarity between Piaget's findings and those of Goldstein and Scheerer relative to abstract thinking and can understand how the similar findings of both schools combine to have a strong influence on Schroder's thinking.

A third stream of influence on Schroder has been the work done in the area of social or interpersonal perception. Two figures appear

most prominent -- George A. Kelly and James Bieri. Kelly (1955) developed a theory of personality which he subtitled "A Theory of Personal Constructs". This theory hypothesizes that

> . . .man looks at his world through transparent patterns or templets which he creates and then attempts to fit over realities of which the world is composed. (ibid., pp. 8-9)

These patterns Kelly calls "constructs". All of these constructs are subject to revision or replacement. Indeed, one of Kelly's key assumptions is that ". . .there are always some alternative constructions available". Thus,

> . . .no one needs to paint himself into a corner; no one needs to be completely hemmed in by circumstances; no one needs to be the victim of his biography. (ibid., p. 15)

This position Kelly names "constructive alternativism".

Bieri, building on Kelly's theory and using Kelly's Role Construct Repetory Test as an instrument for his research, developed the concept of cognitive complexity, a personality variable influenced by cognitive style. Cognitive complexity refers to the degree of differentiation in the system of constructs employed by an individual in understanding his world. Does he, for instance, use only a few gross constructs or does he interpret his surroundings in terms of many finely delineated meanings?

A synthesis of these various influences was made by Schroder along with his colleagues, O. J. Harvey and David E. Hunt. In their combined effort, Conceptual Systems and Personality Organization (1961), they develop at greater length the characteristics of abstract cogni-

tive functioning described by Goldstein and Scheerer and expand on the characteristics of concrete thinking as well. They describe the properties of concrete thinking as follows:

> 1. a simpler cognitive structure, comprised of fewer differentiations and incomplete integration;
> 2. a greater tendency toward bifurcated evaluations; viz., good-bad, right-wrong, black-white, etc.;
> 3. a greater dependence on external or social definitions as criteria of validity and hence a greater dependency on authority, precedent, and other extrapersonal sources as guidelines to action;
> 4. a greater intolerance of ambiguity, expressed in such ways as the tendency to standardize judgments more quickly of a novel situation, even at the expense of error and susceptibility of false but salient cues;
> 5. a greater inability to change set and hence more stereotypy in the solution of more complex and changing problems;
> 6. a greater resistance to change at low levels of stress, but a greater likelihood of collapsing or going to pieces under high stress;
> 7. a poor delineation between means and ends and hence a paucity of different routes to the same goal and a greater disturbance of conceptual effectiveness from threat to or impairment of a set of means;
> 8. a poorer capacity to 'act as if', to assume the role of the other or to think and act in terms of a hypothetical situation;
> 9. a less well-defined self and hence less entrance of the self as a perceived causal agent in effecting sought outcomes in one's environment.
>
> (Schroder and Harvey, 1963, p. 116)

These authors go beyond the description of characteristics, however. They suggest stages of conceptual development and propose conditions, the presence or absence of which will either foster or retard this development. The stages are remarkably similar to Piaget's,

not only with regard to the age at which the stages generally appear, but also relative to the increasing capacity for abstractness and mutuality of thinking which characterizes them. The Schroder stages seem to be more inclusive than the Piagetian stages of cognitive development and seem to include some of the characteristics of Piaget's stages of moral development as well. In short, the authors appear to go beyond epistemology and move towards a theory of personality. Figure 2 (p. 28) describes the stages and the conditions which nurture them.

Among those who espouse the theory of cognitive complexity there is some variation of emphasis, however. Some, like Bieri (1955), prefer to study the organism's capacity for cognitive differentiation, the ability to isolate one idea from another. Schroder (Schroder, Driver and Streufert, 1967) compares this to a set of filters, which the organism uses in selecting certain kinds of information from the environment. Schroder himself prefers to study another aspect of complexity which he compares to a program or set of rules which combines items of information in specific ways. He calls this the structural or information processing variable in distinction from the component or content variable described above. Because Schroder's is a theory of cognitive complexity, it describes persons along the cognitive continuum of concreteness-abstractness and across the corresponding personality continuum authoritarian-interdependent. But because its emphasis is on integration rather than differentiation, it goes a bit beyond the others in its attempt to describe the person's ability to form new hierarchies and generate rules and interconnecting linkages between parts. In Schroder's words,this is the "one model of informa-

Figure 2. Training conditions and system effects of conceptual development. (after Schroder and Harvey, 1963.)

Conditions	Reliable Unilateral	Unreliable Unilateral	Protective Interdependent	Informational Interdependent
Their effect on development	Arrestation at Stage 1	Unique progression to Stage 2; arrestation at Stage 3	Unique progression to Stage 3; arrestation at Stage 3	Optimal development through all stages to Stage 4
Character of system	Closed to opposition to absolute control	Closed to dependency and absolutism	Closed to autonomy	Open to differentiation and integration at all levels
Personality organization	Authoritarianism	Negative independence	Social accommodation	Interdependence
Group structure	Autocratic	Anti-autocratic	Participant democratic	Interdependent democratic

tion processing involving the combination of scale values which actually fits some judgmental processes engaged in human thought. . . ." (ibid., p. 251)

To help distinguish between levels of integrative capacity, Schroder has constructed an integration index to measure the levels of processing at which people function. Figure 3 (p. 30) illustrates this scale and offers samples of statements exemplifying the various levels. Though acknowledging many possible gradations, Schroder, Driver and Streufert (1967) construct a measure describing four levels of complexity: low, moderately low, moderately high, and high integration indices. These indices describe a continuum spanning the qualities of concreteness-abstractness. The lower indices reflect concreteness or simplicity of intervening structures. These structures are

> . . .characterized by compartmentalization and by a hierarchial integration of parts (rules). Regardless of the number of dimensions or the number of rules and procedures involved, the integrating structure is absolute. It lacks sets of alternate interacting parts. (ibid., p. 15)

Thus the organism functioning at the lower level exhibits comparatively fewer dimensions in processing information. The higher indices, on the other hand, reflect abstractness or complexity or intervening structures. The major characteristic of such structures is "the potential to generate alternate interpretations of a stimulus on any one dimension at a particular time". (ibid., p. 18) It is also found that when these structures are employed "more information is generated and evaluations are less fixed". (ibid.)

Figure 3. Integration index scale. (after Schroder et. al., 1967)

Examples of Responses to the Stimulus Word "Rules. . ."
The score they receive on the Integration Index Scale appears to the left.

Scale Point	Responses
1	"are made to be followed. They give direction to a project or life or anything. They should not be broken except in extreme circumstances."
2	"are made to be obeyed in most cases. They are made for a reason after all. If a rule doesn't seem adequate any longer, it can be broken. Since human beings make rules, the rules are fallible also."
3	"People seem to forget that rules are not ends in themselves. They were made by us, not created by their own will, for our benefit. People, for the most part, often don't see beyond the point of the rules, don't look for the underlying reasons."
4	"can be irritating when they interfere with one's life. But it's important to remember that they have been carefully thought out. They are in no sense absolute, but can provide a relative measure of security from others bent on their own interests as well as order."
5	"must be inspected before they are obeyed blindly. Obeying a 'bad' rule or law is perhaps worse than not obeying. If one obeys a 'bad' rule ('bad' morally, socially, etc.), he gives it strength. Rules should be examined by society and changed, if necessary, by the process of law or obsolescence or enough people refusing to obey them publicly."
6	"represent one type of mechanism by which man tries to regulate his society. These rules differ according to different environmental and sociological factors and are in an endless process of change, within the same group and from group to group."
7	"serve mankind and should be interpreted in terms of their ends, not their letter. They have a purpose both for the governed (keeping order) and for those who govern (order, maintaining status quo, etc.), which purpose can and perhaps should, change from time and place and, hopefully, lead to a better, broader basis of understanding humans and making rules."

The four levels of integrative complexity reflect a progressive movement away from the qualities of a concrete mode of thought and towards those of abstractness. The major characteristics, then, of the low index are:

> 1. categorical black and white thinking;
> 2. minimizing of conflict;
> 3. anchoring of behavior in external conditions;
> 4. the more absolute the rules of integration the greater the generalization of functioning within a certain range, and the more abrupt or compartmentalized the change when it occurs.
>
> (Schroder, 1971, p. 257)

The moderately low level of complexity possesses the following characteristics: 1) the presence of conceptual apparatus that is able to generate alternate organizations of dimensions; 2) a lack of conceptual apparatus for relating or organizing differentiated rules. Functionally, this level is described by the following behaviors: a movement away from absolutism; the emergence of primitive internal causation; instability and non-commitment; the continuing presence of a form of rigidity. Thus, at the moderately low level, though some remnants of the most rudimentary stage are manifest, developmental possibilities are opened up for the evolvement of higher level structures. (Schroder, Driver and Streufert, 1967, pp. 18-20)

Three characteristics emerge in the moderately high level of complexity: 1) more dimensions are generated; 2) the person is able to combine schemata; 3) more complex rules for comparing and relating pairs of schemata are required. At this level of complexity, we find that the system is less deterministic; the environment can be viewed

from different points of view; and structure is more self-reflective, indicating the more active functioning of an internal process. (ibid., pp. 21-22)

Finally, at the fourth level, there is evidence of "additional and more complex potentialities for organizing additional schemata in alternate ways". "Comparison rules can be further integrated" and in general there is opened up "the possibility of highly abstract functions" such as "the delineation of many systematically related alternatives". (ibid., pp. 22-23)

For instance, interpersonal and intergroup attitudes are formed as the result of the differentiation and integration of information about stimuli. Thus, the following predictions: Concrete attitudes will be based on less information because less information is processed along fewer dimensions. Such attitudes will tend to remain more stable over time because fewer kinds of information are processed. Finally, this type of attitude will be more categorical. On the contrary, the more abstract attitude structure will tend to be more adaptable, since there is more likelihood that more discrepancy of information will be tolerated and employed. Schroder summarizes these predictions as follows:

> The more concrete the structure, the more a person's functioning becomes rigidly determined by an absolute belief that structures the world in a fixed way. The more abstract an attitude, the more the attitude serves the function of information search, and the more it becomes the basis for the generation of new integrations for decision-making purposes. (ibid., p. 128)

Like any personality theorist, Schroder cautions us not to expect the same degree of complexity to be employed in all situations. Conditions and content areas will affect functioning. The same individual, for instance, may react more simply to one set of stimuli; e.g., religion, than to another; e.g., interpersonal relations. However, keeping such considerations in mind, it does seem plausible to expect a person who generally functions at the complex level to react to stimuli in a complex fashion more regularly than the individual whose cognitive set is generally simple. This conclusion is supported by the writing of Berkowitz (1962) and McClelland (1953), as well as by the research of Driver (1962).

The following, then, are reasons for the choice of Schroder's instrument in this study of the personality correlates of Kohlberg stages. Both Kohlberg and Schroder stress the functioning of human cognition over the acquisition of content. Both are stage theories which heavily emphasize the role of environment on growth. Kohlberg stages, like Schroder levels, are distinguished by an increasing capacity for logico-mathematical thinking and corresponding growth along the concreteness-abstractness continuum which facilitates the interpretation of rules in conflict situations. Finally, for Kohlberg and Schroder alike, the stages or levels tend to describe total ways of thinking and consequently cognitive development has its correlates in the affective and interpersonal domain. Thus we find higher scoring individuals in both theories described as more autonomous, more empathic, more capable of self-correction, more problem rather

than rule oriented.

It would seem, then, that a relationship should be found between the Kohlberg stages and the corresponding level of complexity on the Schroder scale. Such a comparison may give more insight into the nature of the cognitive aspect of moral judgment, construing it not only as a capacity for formal operational thought but for integration as well.

Cattell's Trait Factor Theory

A personality study intended to complement Kohlberg's theory requires more than an assessment of cognitive dimensions. Critics like Alston (1971) and Peters (1971) have noted that Kohlberg in developing his theory seems to ignore some of the more traditional concepts related to the psychology of morality. This lacuna, they suggest, exists in particular with reference to interpretations proposed by the psychoanalytic and learning traditions. Because Cattell's theory of personality reflects both of these influences (Hall and Lindzey, 1957), a description of personality derived from his instrument should add some dimensions to an understanding of these influences on persons at the various stages of moral development.

Another reason for selecting Cattell's theory centers around his definition of personality as "that which permits a prediction of what a person will do in a given situation". (1950, p. 2) One of the most contested areas of the Kohlberg theory is the leap he makes from thought to action. If Kohlberg stages can be adequately distinguished

by personality traits, then we could have one more bit of evidence on which to assess the predictability of their behavior.

A further reason for using the Cattell model is because of the possibility for further research of a longitudinal nature allowed by the fact that tests (e.g., CPQ, HSPQ and 16 PF) have been developed which measure the same personality traits throughout the span of an individual's life. So if, for instance, this study does bring to light personality correlates of the Kohlberg stages, further research can investigate whether these characteristics may affect the individual's movement developmentally through some or all of the various stages.

Still a further reason for choosing Cattell's method of describing personality is because of the scientific and quantitative nature of his research, which is a welcome complement to Kohlberg's qualitative method.

The Source Traits. Three major resources are employed by Cattel to gather data about personality: the life record (behavior observed in situ or L-data); self-rating (questionnaire type revelations or Q-data); and object tests (observation of performance in a created situation or T-data). After a large number of behavioral ratings of different dimensions are gathered, they are submitted to factor analysis in order to identify a small number of basic factors which account for most of the variation in these measures. The result of this procedure is the emergence of a group of traits called "source traits". These are to be distinguished from "surface traits", which are clusters

of overt variables and remain only descriptive, like a syndrome. Contrary to "surface traits", "source traits" are explanatory and represent underlying causes of the observed correlations of surface traits. They are a unitary influence in personality which affect a whole structure of responses. (Cattell, 1965) In Cattell's words:

> . . .the source traits promise to be the real structural influences underlying personality, which it is necessary for us to deal with in developmental problems, psychosomatics, and problems of dynamic integration. . . .as research is now showing, these source traits correspond to real unitary influences -- physiological, temperamental factors; degrees of dynamic integration; exposure to social institutions -- about which more can be found out once they are defined. (1950, p. 27)

Twenty-odd years of research have produced a list of fifteen personality source traits which, with intelligence, are measured by the Sixteen Personality Factor Questionnaire (16 PF). These factors are listed for convenient reference in Figure 4, page 37. However, a fuller description of each trait is added here and mention is made of possible relevance to Kohlberg's theory. This will serve two purposes. First, it will begin to draw together the concepts with which the hypothesis will be concerned. Secondly, the limits of definition of each factor will be clear.

The following descriptions are an edited version of the source trait characteristics discussed in Cattell's The Scientific Analysis of Personality (1965) and outlined in the Handbook for the Sixteen Personality Factor Questionnaire (Cattell, Eber and Tatsuoka, 1970 Edition).

FACTOR A: (Sizothymia, A- versus Affectothymia, A+) This factor was initially thought to correspond to the traditional dichotomy

Figure 4. The primary source traits covered by the 16 PF test. (after Cattell, 1970.)

Factor	Low Sten Score	High Sten Score
A	RESERVED, detached, critical, aloof, stiff (Sizothymia)	OUTGOING, warmhearted, easygoing, participating (Affectothymia)
B	DULL, low intelligence (Crystallized, power measure)	BRIGHT, high intelligence (Crystallized, power measure)
C	AFFECTED BY FEELINGS, emotionally less stable, easily upset, changeable (Lower Ego Strength)	EMOTIONALLY STABLE, mature, faces reality, calm (Higher Ego Strength)
E	HUMBLE, mild, easily led, docile, accommodating (Submissiveness)	ASSERTIVE, aggressive, competitive, stubborn (Dominance)
F	SOBER, taciturn, serious (Desurgency)	HAPPY-GO-LUCKY, gay, enthusiastic (Surgency)
G	EXPEDIENT, disregards rules (Weaker Superego Strength)	CONSCIENTIOUS, persistent, moralistic, staid (Stronger Superego Strength)
H	SHY, timid, threat-sensitive (Threctia)	VENTURESOME, uninhibited, socially bold (Parmia)
I	TOUGH-MINDED, self-reliant, realistic (Harria)	TENDER-MINDED, sensitive, clinging, overprotected (Premsia)
L	TRUSTING, accepting conditions (Alaxia)	SUSPICIOUS, hard to fool (Protension)
M	PRACTICAL, "down-to-earth" concerns (Praxernia)	IMAGINATIVE, bohemian, absent-minded (Autia)
N	FORTHRIGHT, unpretentious, genuine but socially clumsy (Artlessness)	ASTUTE, polished, socially aware (Shrewdness)
O	SELF-ASSURED, placid, secure, complacent, serene (Untroubled Adequacy)	APPREHENSIVE, self-reproaching, insecure, worrying, troubled (Guilt Proneness)
Q_1	CONSERVATIVE, respecting traditional ideas (Conservativism of Temperament)	EXPERIMENTING, liberal, free-thinking (Radicalism)
Q_2	GROUP DEPENDENT, a "joiner" and sound follower (Group Adherence)	SELF-SUFFICIENT, resourceful, prefers own decisions (Self-sufficiency)
Q_3	UNDISCIPLINED SELF-CONFLICT, lax, follows own urges, careless of social rules (Low Self-sentiment Integration)	CONTROLLED, exacting will power, socially precise, compulsive, following self-image (High Strength of Self-sentiment)
Q_4	RELAXED, tranquil, torpid, unfrustrated, composed (Low Ergic Tension)	TENSE, frustrated, driven, overwrought (High Ergic Tension)

in psychiatry between the schizoid and the cyclical psychoses. However, the A- pole is now referred to as sizothymia (from sizo, the Latin for "flat", referring to the flatness and dryness of the emotionality in the A- person) and the A+ pole as affectothymia, referring to the tendency to the appropriate but fulsome expression in affect (feeling). There is an appreciable hereditary influence on this factor. The sizothyme individual is not abnormal, but has a temperamental inclination to be cautious in emotional expression, uncompromising and critical in outlook, and awkwardly aloof in manner. The more consistent features of affectothymia are easygoingness, accessible emotions, interest in people, predominance of affect, etc. The A+ individual expresses marked preference for occupations dealing with people, enjoys social recognition, and is generally willing to "go along" with expediency; while the A- person likes things or words (e.g., logic, machinery), working alone, hardheaded intellectual approaches, and rejection of compromise. There is evidence that collections of A+ persons are natural "joiners", more readily forming active groups. There is experimental proof that they are more generous in personal relationships and less afraid of criticism. Presumably, the A+ person would be more likely to avail himself of group situations which provide more opportunity for the social role taking which Kohlberg considers to be a condition for development of moral judgment. As Kohlberg notes:

> The first prerequisite for role-taking is participation in a group or institution. Participation is partially a matter of sheer amount of interaction and communication in the group. . . . (1969, p. 399)

FACTOR B: (Low Intelligence, B- versus High Intelligence, B+) The aim in constructing the B measure has been to keep a balance between emphasis on the fluid and crystallized general ability factors. Being unspeeded, it is a "power" measure, and, as such, will not correlate quite so highly with the usual speeded intelligence test as with a power test. Fluid intelligence, since it measures such facets as the perception of complex and abstract relationships, should tend to correlate with both integrative complexity and maturity of moral judgment. As such it could appear as a trait distinguishing higher from lower Kohlberg stages.

FACTOR C: (Emotional Instability or Ego Weakness, C- versus Higher Ego Strength, C+) This factor is one of dynamic integration and maturity as opposed to uncontrolled, disorganized, general emotionality. It seems to be what the psychoanalysts have attempted to describe by the notion of ego strength and weakness. The C- person is easily annoyed by things and people, is dissatisfied with the world situation, his family, the restrictions of life, and his own health, and feels unable to cope with life. Research has shown that high C individuals are far more frequently leaders than are C- individuals. Clinically, the outstanding observation is that most disorders show low ego-strength scores. In experimental group dynamics, it has been shown that groups of high-average C score maintain better group morale. Occupationally, individuals having to adjust to difficulties thrown upon them from outside, e.g., administrators and airline pilots, appear to be selected for above-average ego strength. Since ego strength has

consistently been associated with moral development generally (Havighurst and Taba, 1949; Peck and Havighurst, 1960; Bull, 1969) and with Kohlberg stage development specifically (Sullivan, McCullough and Stager, 1970; Krebs, 1971), it is reasonable to expect C scores to distinguish between groups of persons at the various Kohlberg stages.

FACTOR E: (Submissiveness, E- versus Dominance or Ascendance, E+) Groups averaging high on E show more effective role interaction and democratic procedure. It suggests a desire for autonomy in fellow group participants. Among occupations, it is most associated with those requiring boldness and courage. It is not to be confused with the two dynamic traits in the Motivation Analysis Test, which cover the individual's need for achievement; namely, the self-assertion erg and sentiment to the self. Though showing a low but significant correlation with both of these dynamic traits, it is structurally quite distinct from them. It is to be conceived of as a broad, temperamental, dispositional personality trait. It is appreciably influenced by heredity and is one of the personality factors distinguishing the sexes. Presumably this trait influences the way one interacts in a group. Since the way one participates in groups as well as the fact of participation affects social role-taking (Kohlberg, 1969), it is conceivable that a higher E score may be characteristic of persons functioning at the higher stages of moral development.

FACTOR F: (Desurgency, F- versus Surgency, F+) This trait is one of the most important components in extraversion. It reflects the level of inhibition imposed on the individual in upbringing. Investi-

gation of personal histories shows that surgent persons have generally had an easier, less punishing, more optimism-creating environment, or that they have a more happy-go-lucky attitude through less exacting aspirations. Desurgency should not be confused with depression. Desurgency is "soberness" and caution rather than depression. Elected leaders are far higher than followers on surgency, but the difference is scarcely significant for "effective" leaders (Cattell and Stice, 1954). In group interaction measures, surgents make many group-favorable remarks, receive many sociotelic votes, are widely accepted, and receive significantly higher ratings as effective speakers. Though not descriptive of a particular stage of moral development, F may be a factor which relates to the failure of subjects who function at the higher cognitive levels but score lower than expected on measures of moral development.

FACTOR G: (Low Superego Strength or Lack of Acceptance of Group Moral Standards, G- versus Superego Strength or Character, G+) This factor, particularly in observer ratings, has some resemblance to ego strength, Factor C, in their common contribution to self-controlled behavior and regard for others, as opposed to emotional and impulsive behavior. The difference lies in this, that G+ also operates in a "drive to do one's best", i.e., in persistence. It also brings a strong involvement in moral concerns of right and wrong. It best depicts the deeply rooted concern for moral standards, for persistence of effort, and, in general, the tendency to drive the ego and to restrain the id, which clinical theory has considered to be marks of the

superego. Subjectively, the G+ person views himself as correct in, and a guardian of, manners and morals, persevering, planful, able to concentrate, interested in analyzing people, cautious in statements, and preferring efficient people to other companions. A number of objective tests seem to indicate that this factor involves success in a variety of performances requiring persistence, freedom from oscillation, and good organization of thinking. There are some disputes, however, concerning the interpretation of high and low G scores. Some "rationalists", "intellectuals", and "emancipated individualists", who behave very dependably socially and express humanistic ideals, can nevertheless score quite low on this factor. Faking is also important. Criminals seeking parole will attempt to manipulate this factor, and persons of all ages in a pose of adolescent revolt will deny their acceptance of simple moral standards which they actually practice. Cattell et. al. feel that the proof of the nature of G is not its item content, but the criteria with which it correlates. It correlates positively with school and general achievement. In group dynamics experiments, it significantly distinguishes leaders from followers and is associated, in group members generally, with a higher percentage of group-task-oriented participation of all kinds. It tends to be particularly low in psychopaths, criminals, and other groups who are characterized by low regard for conventional moral standards. Superego strength has consistently been related to moral choice. One would expect that a low score on G would be characteristic of pre-conventionals and a high score characteristic of conventionals. Precisely

because of its relationship to conventional morality higher level Kohlberg stages may score lower than conventional stages.

FACTOR H: (Threctia, H- versus Parmia, H+) This is a strongly defined factor which appears with high persistence even in rough factorings of ratings and in questionnaires. The H- individual reports himself to be intensely shy, tormented by an unreasonable sense of inferiority, slow and impeded in expressing himself, disliking occupations with personal contacts, preferring one or two close friends to large groups, and not able to keep in contact with all that is going on around him. The current hypothesis is that H represents some largely constitutional factor of (in the positive direction) low physiological reactivity to threat. It is for this reason that the opposite (negative or low) pole is called threctia (short for "high susceptibility to threat"). Counts in group situations show H+ persons have been rated as feeling free to participate in groups and they receive more than the average share of votes as effective speakers, and make more socio-emotional (friendly) than task-oriented remarks (Cattell and Stice, 1953). Because of its relationship to group participation, H+ could be descriptive of higher Kohlberg stages.

FACTOR I: (Harria, I- versus Premsia, I+) In questionnaire studies, I+ persons show a dislike of "crude" people and rough occupations; a romantic liking for travel and new experiences; a somewhat unrealistic, imaginative, aesthetic mind; and a certain impracticality in general affairs. Women run decidedly higher than men. Group performances tend to be poorer in groups with higher average I+ score

for their members. I+ individuals receive significantly more descriptions as fussing, slowing up group performance in arriving at decisions, and making negative socio-emotional (morale upsetting) remarks. I- represents a sort of tough, practical, mature, group-solidarity-generating and realistic (no-nonsense) temperamental dimension. Recent nature-nurture evidence shows that this factor is largely environmental and cultural in origin (Cattell, Blewett and Beloff, 1955). Premsia, I+, is associated primarily with an overprotected or, at least, sheltering-from-urgent-demands-of-life upbringing. Since the best-supported theory concerning this trait is, as indicated, "projected emotional sensitivity", this concept is expressed by an acronym, in the title premsia. Possibly this factor could be related to failure of cognitively well developed subjects to score as high as might be expected on measures of moral development.

FACTOR L: (Alaxia, L- versus Portension, L+) The term protension, signifying "projection and innertension", is used to describe this factor. Much of the behavior in this factor may be identified with the persistent adoption of a particular defense mechanism -- true projection. The opposite, low, L- pole of the factor is one of easygoing, friendly relaxation, and perhaps lack of ambition and striving. The protensive person reports in questionnaire and biographical items that he comes from a parental home which he admired, and which had lively intellectual interests; he is contemptuous of the average, is scrupulously correct in behavior, is annoyed by people putting on superior airs, and is skeptical of alleged idealistic motives in

others. In objective tests, he lists a relatively high number of annoyances, is uninfluenced by the views of prominent people, and declines to be generous in giving information to others in a test situation. The protensive person shows a high inner tension as measured by the general anxiety factor, U.I. (T) 24 (Cattell, 1957) which takes the form of a feeling of social insecurity, together with compensatory behavior and projection. There is some suggestion that protension is a preferred method of handling anxiety among intelligent and educated people, in that it loads the general anxiety factor more in doctors than in the general population. The protensive person in group dynamics experiments is rated unpopular, and groups averaging high on L are significantly less cohesive, and low on morale (Cattell and Stice, 1953). L- persons are described as more trusting. This quality and others descriptive of L- individuals would lead us to suspect lower L scores for higher Kohlberg stages. Possibly also it could be a factor explaining lower moral development scores for cognitively developed subjects.

FACTOR M: (Praxernia, M- versus Autia, M+) This is a subtle pattern. Essentially the M+ person has an intense subjectivity and inner mental life. The term autia is meant to convey this autistic or, at least, "internally autonomous" thinking, while the opposite, praxernia, conveys the serious "practical concern" with outer "awkward" details. The present hypothesis is that M+ represents a temperamental, partly constitutional capacity to dissociate ideational systems and memories (Cattell, 1957). This may arise from some neurological quality, though some relation to an indulgent, protective, family

environment is also detected. High M individuals in groups tend to feel unaccepted, but unconcerned. They participate and make original leadership suggestions which are not immediately ignored, though in the long run their partly impractical suggestions turn out to be rejected. They express significantly more dissatisfaction with the group unity and the group's regard for rules of procedure. High M has been found by Drevdahl (1956) and Cattell and Drevdahl (1955) most significantly to distinguish the more creative researchers and artists from administrators and teachers of the same eminence. Because of its relationship to autonomy of thought and independence, M+ can be expected to describe higher stages of development of moral judgment.

FACTOR N: (Naivete, N- versus Shrewdness, N+) This factor is not so well established in behavior ratings as in the questionnaire. High N individuals tend to be ingenious, sharp at clinical diagnosis, flexible in viewpoint, inclined to "study the angles", alert to manners, to social obligations, and to the social reactions of others. It seems related to intellectual-educational development, but is not to be confused with intelligence, though it does correlate positively both with intelligence and dominance. It is also related to an objective test factor, U.I. (T) 19, showing insecure behavior, suggesting the pattern is motivated by "social climbing". The positive qualities of low N are emotional genuineness, complete directness and spontaneous outspokenness. This dimension thus looks like a socially acquired pattern of skills. It is probably stimulated partly by a difficult environment, creating insecurity and shrewd suspicion. In its positive

aspects, it may represent an intellectual, self-sufficient, sophisticated development, with skepticism about the more naive assumptions of the culture. In group dynamics, high N's lead in analytical, goal-oriented discussion and in providing constructive group solutions, while low N's are judged as slowing and hindering proceedings. On this basis one might expect the higher Kohlberg stages to score higher on N than lower stage subjects.

FACTOR O: (Untroubled Adequacy, O- versus Guilt Proneness, O+) The O+ person feels that he is unstable, reports overfatigue from exciting situations, feels inadequate to meet the rough daily demands of life, is easily downhearted and remorseful, feels that people are not as moral as they should be, is inclined to piety, prefers books and quiet interests to people and noise. It is thus broader than guilt in its most specific sense. Clinically, O is very important as one of the largest factors in anxiety. In contrast to G, O is a "guilt proneness", "poorness of spirit", or piety which may be considered an emotionally deeper sense of general unworthiness, occasioning a more sensitive reaction to superego infringements, though not a greater development and strength of the superego itself. G seems to represent the ability to refrain from unacceptable behavior beforehand, while O represents only the guilt feelings that come afterward. The authors caution against

> . . .making the value judgment that O+ is mere weakness or a 'psychological deficit'; for 'oceanic' emotional sensitivity described in William James' essay on religion may (as readers of Dostoevsky will intuit) have important

> socio-moral functional value. (Cattell, Eber and Tatsuoka, 1970, p. 103)

It is conceivable that this factor could influence one's cognitive functioning and be related to the issue of why some highly cognitive individuals score lower on measures of moral judgment.

FACTOR Q_1: (Conservatism of Temperament, Q_1- versus Radicalism, Q_1+) This is the first of the factors which have not appeared in behavior ratings, and which come to be known mostly through the "mental interior", in which the subject lays out his views in questionnaire responses. Evidence points to its being more than a mere set of acquired radical intellectual, political and religious attitudes. Present theory finds it rooted in a broader general temperamental tendency to like innovations. Q_1+ persons are more well informed, more inclined to experiment with problem solutions, less inclined to moralize, less unquestioning about views generally, etc. Mere inclination to revolt should be distinguished from the Q_1 source trait of "radicalism". Adolescents, for example, are probably high in need to revolt, but Q_1 is actually higher in people in middle life than in young people. Examination of the actual content of Q_1 items has shown that Q_1+ individuals express more interest in science than religion, more interest in analytical thought, in reading as opposed to class instruction, in "breaking the crust of custom and tradition", and in leading and persuading people. In group dynamics the Q_1+ person contributes significantly more remarks to discussion, a high percentage being of a critical nature. A study on a large number of leadership persons in a very liberal church movement showed high Q_1

scores as a persistent characteristic of these persons. Q_1 is part of the second-order factor of Independence. Q_1+ would seem to describe persons more likely to reach the higher Kohlberg stages.

FACTOR Q_2: (Group Dependency, Q_2- versus Self-Sufficiency, Q_2+) This factor has not yet appeared in ratings. It is one of the major factors in introversion, Q_1. The Q_2+ person is resolute and accustomed to making his own decision, alone, while the Q_2- person goes with the group, depends on social approval more, and is conventional and fashionable. In group dynamics, the high Q_2 person is significantly more dissatisfied with group integration, makes remarks which are more frequently independent solutions than questions, and tends to be rejected. At school, Q_2+ children prove commonly to have been decidedly on the seclusive side -- early developers who tend to associate with a few older friends. Because it is a measure of social independence, Q_2 would seem to distinguish the lower from the higher Kohlberg stages.

FACTOR Q_3: (Low Self-Sentiment Integration, Q_3- versus High Strength of Self-Sentiment, Q_3+) Some difficulty was encountered in recognizing this factor in externally rated behavior. It represents the strength of the individual's concern about his self-concept and social image. This hypothesis is supported by the substantial correlations repeatedly found between Q_3 in the 16 PF and the self-sentiment measured in the MAT (the Motivation Analysis Test), suggesting the same source trait through different instrumentalities. The Q_3+ person shows socially approved character responses, self-control, per-

sistence, foresight, considerateness of others, conscientiousness, and regard for etiquette and social reputation. In group dynamics, a high Q_3 score especially picks out persons who will be chosen as leaders (Cattell and Stice, 1954), but even more so those who are effective rather than merely popular leaders. They make more remarks in committee than others, especially problem-raising and solution-offering comments, receive fewer votes as hinderers, and fewer rejections at the end of the sessions. Cattell, Eber and Tatsuoka (1970) say that it represents the level of development of the conscious, behavior-integrating self-sentiment; i. e., the extent to which the person has crystallized for himself a clear, consistent, admired pattern of socially approved behavior, to which he makes definite efforts to conform. The degree of attainment of this self-ideal pattern is not very measurable by questionnaire. What is being measured is the amount of concern about and regard for these standards. In its role of aiding integration, some resemblances are noted both to ego strength, C, and super-ego control, G, but it is more conscious than C, and more directed to social acceptance and self-enhancement than is G. Comparing Kohlberg scores with Q_3 scores could give us an indication of the relationship between feelings about self and moral development, an area which Graham (1972) considers to be one of the aspects psychologists might profitably pursue.

FACTOR Q_4: (Low Ergic Tension, Q_4- versus High Ergic Tension, Q_4+) This factor has been confused with O+, and it was often difficult

to separate it from both O+ and C-. However, all three factors are demonstrably distinct, despite significant positive intercorrelations. Group dynamics experiments indicate that persons high in Q_4 rarely achieve leadership, take a poor view of the degree of group unity, and the quality of the existing leadership. Clinically, Q_4 is one of the three highest-loaded factors in general anxiety. High Q_4 is best interpreted as

> . . .an 'id' energy excited in excess of the ego strength capacity to discharge it, and is generally disruptive of steady application and emotional balance. (Cattell, Eber and Tatsuoka, 1970, p. 109)

High scores can be a function of level of situational, environmental frustration and difficulty, as well as some temperamental incapacity of the ego to handle libidinal energy well even in an environment of ordinary difficulty. For the reasons mentioned in the discussion of Factor C, one might expect a relationship to exist between Q_4 and stages of development of moral judgment.

Summary and Hypotheses

In outlining the above theories of personality, several relationships between them and Kohlberg's theory of development of moral judgment have been noted. First, a significant relationship would seem to exist between levels of integrative complexity and stages of moral development. This is based on the theoretical analysis above and on empirical studies supporting a relationship between moral development and cognitive ability (Chassel, 1935; Inhelder and Piaget, 1958; Boehm, 1962; Kohlberg, 1964a; Piaget, 1965; Perry, 1970; Johnson, Dovecki and

Mowrer, 1972; Arbuthnot, 1973; Bush, 1973; and Black, 1973). This relationship is not expected to be mutually isomorphic since a higher level cognitive development is a necessary but not sufficient condition for higher stage moral development. It is hypothesized, therefore, that persons who achieve higher stages of moral development will also achieve higher levels of integrative complexity and that persons who achieve lower levels of integrative complexity will achieve lower stages of moral development.

Further, theoretical analysis suggested that non-cognitive personality characteristics bear a relationship to the Kohlberg stages of moral development and consequently may foster understanding of these stages. This is supported philosophically by Wilson (1967) and empirically by studies of Peck and Havighurst, 1960; Bull, 1969; Sullivan, McCullough and Stager, 1970; and Krebs, 1971.

The relationship between these characteristics and stages of moral development has been divided into three categories. Certain personality traits might be expected to differentiate stages on the basis of Kohlberg's description of them relative to such qualities as dependence, conformity and autonomy. Thus it is hypothesized that higher stages will be differentiated from lower stages by source traits M+ (internal autonomy of thinking), Q_1+ (willingness to experiment) and Q_2+ (self-sufficiency).

Personality characteristics describing strength and "character" have traditionally been associated with morality. Consequently, it is hypothesized that higher stages are distinguished from lower

stages of moral development by measures of ego strength, specifically, source traits C+ (emotional stability), L- (trust), O- (self-assuredness) and Q_4- (low tension) and by traits G+ (conscientiousness) and Q_3+ (strength of self-sentiment) which describe "character".

Other traits reflect characteristics which may be associated with moral development in that they describe affective qualities which could conceivably affect such preconditions for stage development as group participation and social role taking. It is hypothesized, then, that higher stages of moral development are distinguished from lower stages by source traits A+ (participating outgoingness), E+ (assertiveness), F+ (enthusiasm), H+ (venturesomeness), I- (less emotional sensitivity) and N+ (greater social awareness).

Finally, the question arises whether and which non-cognitive factors might affect the non-isomorphic nature of the relationship between cognitive and moral development. It seems reasonable, therefore, to investigate the personality characteristics of subjects who, although functioning at relatively similar levels of integrative complexity, achieve different stages of moral development.

CHAPTER III

RESEARCH METHODOLOGY

Overview

Several areas of investigation between stages of moral development and personality characteristics have been suggested. There is the relationship between moral development and one cognitive aspect of personality; namely, integrative complexity. Then there are the relationships between moral development and three non-cognitive aspects of personality: first, the relationship between stage development and measures of dependence, conservatism and autonomy of thought, qualities which Kohlberg ascribes in varying degrees to different stages; secondly, the relationship between moral development and the concepts of ego strength and "character", which traditionally have been associated with moral development; and thirdly, the relationship between moral development and affective characteristics which could affect the preconditions of stage development.

It is the purpose of this chapter to describe the methodology used to investigate these relationships empirically. Groups will be compared on the basis of variables identified in terms of already existing subject characteristics rather than in terms of manipulative operations performed by the investigator. A single, standard test situation for all subjects is used, rather than a different set of treatments for each research group. The method, then, is only quasi-experimental. The strength of the study lies in the theoretical questions asked and

in the procedure used to answer them. Its weaknesses lie in the limitations of measurement and in the danger of confusing significance of relationship with cause.

Sample

Subjects for this study were drawn from two sources: St. Francis College (SFC) and York County Community College (YCCC), both in Biddeford, Maine. College level subjects were chosen in order to increase the probability of including in the sample a full range of Kohlberg stages and because stability of stage development of moral judgment tends to be reached by this time. Also, the test for integrative complexity, as will be seen in its description, requires a fairly well developed level of verbal fluency.

Because student populations vary between schools, the schools and samples will be described in some detail.

St. Francis College (SFC) is a small, co-educational, liberal arts college of some four hundred students. Though originally run by a religious order, it is now administered and staffed by laymen. A large proportion of students have studied previously in elementary and secondary schools under Roman Catholic auspices. Practice of religion is not obligatory at the college, however, and, except for optional electives in philosophy and theology, no religious influence is brought to bear on the students. Students come from more than ten states (mostly the New England and Middle Atlantic states) and several foreign countries. Most come from white, middle class families. In general,

they are students who have shown average success in their secondary education. There are few who have experienced great academic success. Their families represent in many ways what is characteristically called "middle America".

Being a small school, one of SFC's advantages is a low teacher-student ratio (about 15 to 1). The fact that students live on or very near to campus gives one the opportunity to know them fairly well. This seemed an asset for the study since it allowed the investigator to establish rapport with most of the subjects prior to testing, a factor which Cattell, Eber and Tatsuoka (1970) feel reduces motivational distortion.

York County Community College (YCCC) is a somewhat typical community college. Its purpose is to provide opportunity for higher education for the local population who do not have either the time, finances or past educational experience to attend other colleges. It is administrated out of the University of Maine at Portland Gorham and serves York County. Students come mostly from the cities of Biddeford and Saco. The combined population of these cities is about 30,000. Small industry and tourism are the main sources of income. Residents belong mainly to the low middle class. Their family backgrounds reflect old Yankee New England or migrated French-Canadian influences. The second largest representation comes from the Kennebunks, a middle to high middle class community of persons of largely New England ancestry. The student population, therefore, repre-

sents fairly well the characteristics of the upper New England states. The investigator taught a class at YCCC and so had the opportunity to build rapport with subjects.

Table I (page 58) describes the sample used for this study. It should be noted at this time that all subjects were volunteers. One hundred persons were tested. Of these, twenty-two had to be rejected, mainly because inadequate responses to either the Kohlberg or Schroder instruments rendered their tests unscorable. It can be seen from the table that both SFC and YCCC groups fit the descriptions of the larger populations given above relative to family origins and religious affiliation. Consequently they seem to be somewhat representative of those larger groups. There is also a fairly equal distribution of male and female subjects. Having both sexes represented allows the comparison of results with the expectation of Kohlberg and Kramer (1969) that women tend to stabilize at stage 3 as compared to a stage 4 stabilization by men. Average age for the whole sample is 24 years of age. The range of ages was 18 to 54.

Testing Situation

Subjects were gathered at times convenient for them. Groups ranged from five to fifteen. Test packets were pre-marked with ID numbers to help insure anonymity. Tests administered, in order, were Schroder's Paragraph Completion Test, Kohlberg's Moral Judgment Scale and two forms (A and C) of Cattell's Sixteen Personality Factor Questionnaire. Average time for completion of the test was two hours.

TABLE 1.

Statistical Description of Research Sample

	Average Age	Sex		Home State							Religious Affiliation		
SFC		M	F	Maine	Massachusetts	Connecticut	New Jersey	New York	Rhode Island	Other	RC	Prot	None
N=47	20	26	21	8	18	4	3	7	2	5	40	2	5

	Average Age	Sex		Home State					Religious Affiliation		
YCCC		M	F	Maine	Massachusetts	Connecticut	Rhode Island	Other	RC	Prot	None
N=31	30	12	19	24	1	1	1	2	15	12	4

	Average Age	Sex		Home State							Religious Affiliation		
TOTALS		M	F	Maine	Massachusetts	New York	Connecticut	New Jersey	Rhode Island	Other	RC	Prot	None
N=78	24	38	40	32	19	7	5	3	3	7	55	14	9

The procedure was repeated several times, first at St. Francis College and then at York County Community College until all subjects were tested. Collection of data took about three weeks. As far as could be ascertained by observation, subjects were relaxed and well motivated. Feedback on the personality questionnaire was optional. (Well over half sought feedback and tended to confirm the profile which the test revealed.

Instrumentation

Moral Judgment Scale (MJS)

The method used for assessing Kohlberg's stages was the Moral Judgment Scale (Appendix A). It is a "structured projective test" (Kurtinis and Greif, 1974) consisting of nine hypothetical conflict stories and corresponding sets of probing questions concerning such incidents as stealing and mercy killing. Subjects are asked to make a judgment in response to these dilemmas and the related questions. Though often administered individually, especially to children, several researchers (e.g., Haan, Smith and Block, 1968) have found written versions to be quite acceptable when administered to college students.

Though widely used and generally accepted, systematic evaluations of the instrument are lacking. Consequently, there is no hard data to support such matters as standardization, reliability and both predictive and construct validity (Kurtinis and Greif, 1974). The investigator acknowledges these limitations in using the Moral Judgment Scale.

Scoring can get quite complex. Most important is that scorers be well trained in the Kohlberg method of scoring. This method has been in a process of change during the period of this study. It was the investigator's judgment that, given these complexities, the best guarantee of reliable scoring lay in having the protocols scored at the Center for Moral Development associated with the Harvard University Graduate School of Education. Cost of the scoring service is $3.50 per protocol.

Scoring done at the Center is in keeping with the latest manual (1975). Rating of responses follow the norms for global rating. Spontaneous orientation; i.e., response to the hypothetical conflict situation before probing is essential to this scoring method. The scoring procedure produces a profile of the weighted percentage usage of each stage by the subject in his reasoning about the moral issues across all of the stories. Two types of overall scores are derived from this procedure. The first type, the global score, is a stage score representing the primary or modal stage used by the subject (i.e., used 50% or more of the time). In addition to the modal stage, a subject can be assigned a minor stage if a second stage has been used at least 25% of the time, thus giving him a "mixed" stage score. A subject is considered a "pure" type if he uses a single stage of reasoning 75% or more of the time. If no stage score has greater than 50% usage by the subject, a global score cannot be assigned. This case did not arise in coding the present data. Results of scoring of the sample for this study are reported in Chapter IV.

Paragraph Completion Test (PCT)

The PCT (Appendix 2.) is a semi-projective test which presents subjects with six sentence stems representing structure (e.g., Rules. . .), conflict (e.g., When I am criticized. . .) and uncertainty (e.g., When I am in doubt. . .). Subjects are requested to write at least three sentences in response to each stem. (Schroder, 1971)

Scoring focuses on structural components with weights assigned as follows: Responses generated by a single rule or perspective receive a score of 1; those indicating alternate but unconnected perspectives are scored 3. Where there is evidence of a relationship between two perspectives, a score of 5 is assigned; those responses indicating multiple relationships score 7. Scores of 2, 4 and 6 represent intermediate judgments between these basic information processing structures. Subjects's score is the sum of his two highest scores on the individual sentence items. Figure 3 (page 30) depicts and exemplifies this scale. Scores of 4 and below are regarded as indicative of functioning at the lower end of the complexity continuum.

A problem in using the PCT is the necessity for trained judges and the amount of time required to train them. To meet this problem, the author chose to use the scoring service available to researchers. Scoring was done by Jacqueline Phares, who has worked with Schroder for years and is responsible with him for the scoring manual. (Phares and Schroder, 1968)

The validity of this test has been affirmed by experimental evidence (Stager, 1967; Paletti, 1968; Gardiner and Schroder, 1972).

Correlational studies find positive correlations with measures of dogmatism (Schroder, Driver and Streufert, 1967), intellectual flexibility, openness and differentiation (Bottenberg, 1969). Largely unrelated to performance on the PCT were intelligence test scores, social desirability and verbal fluency (Bottenberg, 1969; Schroder, 1971). This was particularly true in college populations.

Interrater reliability has ranged from .80 to .95. Internal reliability between items is in the .60 to .75 range. Test-retest studies at time intervals of 3 and 9 months yielded coefficients of .67 and .59 respectively. (Gardiner and Schroder, 1972)

The Sixteen Personality Factor Questionnaire (16 PF) Forms A (1967) and C (1969)

The Sixteen Personality Factor Questionnaire is an objectively scored self-report test. Three alternative answers are provided, since the test constructors feel that forced-choice situations "tend to force a distorted distribution and may produce aversion to the test on the part of the examinee". (1972 Manual, p. 8) Items are

> . . .survivors from several thousands of items and constitute only those which continue to have significant validity (construct) against the factors after ten successive factor analyses. (1972 Manual, p. 11; Cattell, 1973)

Combination of Forms A and C were used to increase validity. Validity coefficients on 15 factors range from .63 to .94. Factor B's validity is measured at .53. A motivational distortion scale has been built into Form C in an attempt to detect faking, although the authors caution against expecting too much from it. (Cattell, Eber and Tatsuoka, 1970,

p. 55) By construct validity (or "concept validity" as the authors prefer to call it) the authors mean that

> the test questions. . .are chosen as being good measures of the personality factors, as these factors are represented in research analysis. (1972 Manual, p. 11)

Test-retest reliabilities over both 2 - 7 day and 2 - 48 month intervals fall between .70 and .92 with only one exception; namely, factor B. This factor showed a fair amount of inconsistency depending on the form of test used. As with other factors, combining forms increases validity and reliability of factor B. Protocols are scored objectively by use of two keys.

Operational Definitions

Moral Development

Level or stage of development of moral judgment as determined by score on the Kohlberg Moral Judgment Scale (MJS).

Integrative Complexity

Score achieved on Schroder's Paragraph Completion Test (PCT).

Personality Source Traits

Scores achieved on factors of the Sixteen Personality Factor Questionnaire (16 PF).

Statistical Procedures

The first part of the study assessed the relationship between higher stages of moral development and higher levels of integrative

complexity on the one hand, and between lower levels of integrative complexity and lower levels of moral development on the other. Subjects were divided into groups on the basis of scores on the MJS and the PCT. The Chi-square test was used to evaluate the significance of these relationships.

The second part of the study assessed the relationship between stages of moral development and personality traits. Traits were divided into three categories: first, on the basis of Kohlberg's description of characteristics of the stages; secondly, on the basis of measures of ego strength and "character"; and lastly, on the basis of traits related to preconditions for stage development. Groups, divided according to stage achievement measured by the MJS, were compared on the basis of scores achieved on 16 PF measures of these traits. A one-way analysis of variance was used in each case to evaluate the significance of these relationships.

In a final section of the study, the PCT was used to investigate personality factors which could be related to the failure of subjects who achieved a high level of integrative complexity to reach the higher stage of moral development. When, contrary to expectations, results indicated that low complexity subjects did achieve the higher stage of moral development, it was decided to investigate the relationship between this finding and personality traits. In both instances, a one-way analysis of variance was used to evaluate the significance of these relationships.

CHAPTER IV

RESULTS AND ANALYSES OF DATA

This chapter reports the performance of subjects on the Kohlberg and Schroder instruments and then presents the analyses of data and testing of statistical hypotheses.

Section One:
The Relationship between Moral Development and Integrative Complexity

Results of the Assessment of Moral Development

The first part of this section consisted of the measurement of stages of moral development by the MJS so that subjects could be grouped for comparative study. The results of scores achieved on this test are summarized in Table 2. As can be seen, no one in the sample scored in the post-conventional level. 5.1 percent scored in the pre-conventional (Stage 2) level. Conventional responses reflected 94.8 percent of the total. Of these, the majority (75.6%) scored in the lower (Stage 3) of the conventional stages. 19.2 percent achieved the higher (Stage 4) of the conventional stages. Stage scores used for these groupings are modal scores (stage used 50% or more of the time in responses).

Although this distribution did not give the range of stages that would have been preferred, it did provide enough distinction between groups to permit comparisons. Nor are the results surprising when one considers the composition of the sample. Kohlberg (1973)

TABLE 2.

Results of Moral Judgment Scale

Kohlberg Level	Kohlberg Stage	N	Percent of Sample
Pre-conventional	Stage 1	0	0
	Stage 2	0	0
	Stage 2/3 (mixed)	4	5.1
Conventional	Stage 3/2 (mixed)	4	5.1
	Stage 3	42	53.8
	Stage 3/4 (mixed)	13	16.7
	Stage 4	12	15.4
	Stage 4/5 (mixed)	3	3.8
Post-conventional	Stage 5	0	0
	Stage 6	0	0
Total		78	100

revised his original assessment of stage achievement and found that most subjects below twenty-four years of age do not reach the post-conventional level. Almost 70 percent of the sample were under twenty-four years of age. Further, this sample, as was noted above, tends to reflect a middle class American population, and it has been found (Kohlberg and Kramer, 1969) that a majority of American adults tend to stabilize at the conventional level, with men tending to stabilize at Stage 4 and women at Stage 3.

Interestingly, this sample was not illustrative of the stage difference between sexes. Comparing subjects who achieved pure Stage 3 and 4, it was found that 25 of 42 (approximately 60%) Stage 3 subjects were males and that 11 of 15 (73%) Stage 4 subjects were female. This may indicate the need for a re-study of Kohlberg and Kramer's (1969) conclusions about the effect of sex roles on stage stabilization.

A final comment about the lack of post-conventional scores in this sample. Graham has criticized the Kohlberg studies as tending to have "a somewhat selected population" (1972, p. 242), implying that findings are a bit biased towards higher performance. Perhaps the "typicalness" of this sample, then, is an asset of the study, although it minimizes the range of scores.

Results of the Assessment of Integrative Complexity

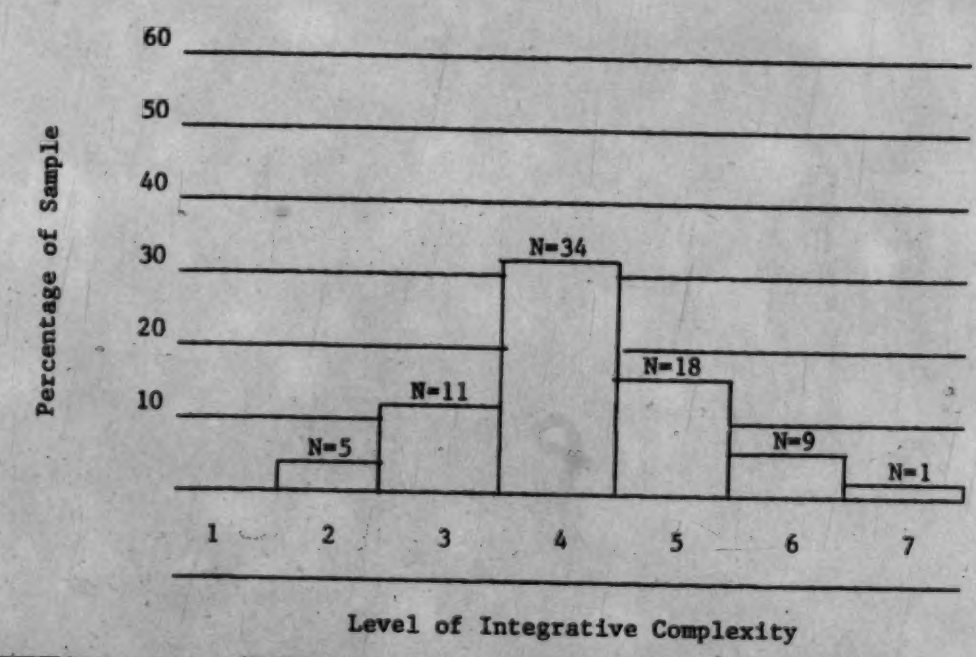
The second part of this section was the assessment of subjects by the PCT in order to separate them into higher and lower levels of integrative complexity. Table 3 describes the results of this part of the research. As can be seen, the majority (approximately 64%) of sub-

jects scored in the lower (4 and below) ranges of complexity. The range of scores in the sample compared favorably with other populations. (Phares, 1975)

Subjects were grouped on the basis of high (5 and above) and low (4 and below) integrative complexity scores. The high complexity group numbered 28; the low complexity group numbered 50. Norms used for grouping were those of Schroder and Phares. (Phares, 1975)

TABLE 3.

Results of the Paragraph Completion Test



Analysis of Relationship between Moral Judgment and Integrative Complexity

The purpose of this segment of the study was to investigate whether integrative complexity, like other measures of cognitive development, bears a relationship to development of moral judgment. First, groups were divided into high and low scores on both the MJS and the PCT. High and low scores on the PCT were as noted above. With respect to the MJS, subjects were regarded as having a high score if they achieved Stage 4 or above. A low score was considered to be Stage 3 or below. Subjects who scored in the mixed 3/4 stage were omitted from this section of the study in order to have a more definite distinction between groups. The results of this grouping are presented in Table 4.

TABLE 4.

Grouping of Subjects
According to Complexity and Moral Judgment Scores

		Moral Judgment: High	Moral Judgment: Low
Integrative Complexity	High	N=4	N=17
	Low	N=11	N=33

Hypothesis Ia. Subjects scoring in the higher stage of moral development will also score in the higher level of complexity.

A Chi-square compared subjects scoring high in moral judgment and high in complexity to subjects scoring high in moral development but low in complexity. Results revealed that there was not a significantly greater number ($x^2 = 3.26$; d.f. = 1; $p > .05$) of high complexity subjects who scored in the higher stage of moral development. In fact, more low complexity subjects scored in the higher stage of moral development. Hence this hypothesis was rejected and it was concluded that a high level of integrative complexity was not related to the higher stage (Stage 4) of moral development. Table 5 shows the observed and expected frequencies of this comparison.

TABLE 5.

High Kohlberg/High Complexity and High Kohlberg/Low Complexity: Observed and Expected Frequencies

High Kohlberg/High Complexity		High Kohlberg/Low Complexity		
4	7.5	11	7.5	15

Hypothesis Ib. Subjects scoring in the low level of complexity will not score in the higher stage of moral development.

A Chi-square comparing subjects scoring low in complexity on the basis of high and low moral judgment scores revealed that the number of low complexity subjects who scored in the lower stage of moral development was not significantly different ($\chi^2 = .25$; d.f. = 1; $p > .50$) than the number of low complexity subjects who scored in the higher stage of moral development. Hence this hypothesis was rejected and it was concluded that low complexity did not prevent subjects from achieving the higher stage of moral development. Table 6 shows the observed and expected frequencies of this comparison.

TABLE 6.

Low Complexity/Low Kohlberg and Low Complexity/High Kohlberg: Observed and Expected Frequencies

Low Complexity/High Kohlberg		Low Complexity/Low Kohlberg		
11	22	33	22	44

The conclusion drawn from the testing of these two hypotheses was that, at least within the range of scores subjects achieved in this study on the MJS and the PCT, integrative complexity did not bear a significant relationship to development of moral judgment.

Section Two:

Analysis of the Relationship between Moral Development and Non-cognitive Personality Traits

The purpose of this section was to compare Kohlberg stages in relationship to source traits as measured by the 16 PF. Three groups were established, containing Stage 2, Stage 3 and Stage 4 subjects.

Hypotheses in this section were divided into three categories depending on whether source traits described: 1. characteristics of stages as described by Kohlberg; 2. personality characteristics traditionally associated with moral development; or 3. qualities related to preconditions of stage development.

Characteristics of Stages as Described by Kohlberg

Hypothesis II A.1. Subjects scoring in the higher stages of moral development will manifest a significantly greater degree of internal autonomy of thinking (M+) than lower stage subjects.

Results in Table 7 indicate that mean scores on source trait M

varied in the predicted direction. An analysis of variance reported in Table 8 revealed that only the difference between Stage 3 and Stage 4 subjects was significant. A Scheffé test (Table 9) for the multiple comparison of means confirmed this finding. As a result, this hypothesis was only partly confirmed. It was concluded that Stage 3 and Stage 4 subjects were differentiated by the degree of internal autonomy of thinking (M+) which characterized them.

Hypothesis II A.2. Subjects scoring in the higher stages of moral development will manifest a significantly greater degree of willingness to experiment (Q_1+) than lower stage subjects.

Table 10 reports the results of the comparison of groups relative to source trait Q_1. Mean scores increased in the predicted direction. An analysis of variance, as Table 11 reports, revealed that these differences were not significant. Consequently, the hypothesis was rejected. It was concluded that stages were not differentiated by degree of willingness to experiment (Q_1+) that characterized them.

Hypothesis II A.3. Groups scoring in the higher stages of moral development will manifest a significantly greater degree of self-sufficiency (Q_2+) than lower stage groups.

Table 12 reports the results of the comparison of groups relative to source trait Q_2. The mean score of Stage 4 subjects was higher than that of either Stage 2 or Stage 3 subjects. Contrary to prediction, Stage 3 subjects scored lowest. None of these differences was significant, however, as the analysis of variance reported in Table 13

TABLE 7.

Means and Standard Deviations:
Kohlberg Stages, Source Trait M

Group	N	$\bar{X}$	S. D.
Stage 2	4	17.75	6.85
Stage 3	59	17.92	3.90
Stage 4	15	21.53	4.29
Total	78	18.60	4.30

TABLE 8.

Results of Analysis of Variance:
Differences between Kohlberg Stages, Source Trait M

Source	S. S.	M. S.	D.F.	F	p
Groups	159.617	79.81	2	4.67	0.012
Error	1281.063	17.08	75		

TABLE 9.

Probability Matrix for Scheffé Multiple Comparison of Means

		Kohlberg Stage		
		2	3	4
Kohlberg Stages	2	1.000	0.997	0.272
	3	0.997	1.000	0.013
	4	0.272	0.013	1.000

TABLE 10.

Means and Standard Deviations:
Kohlberg Stages, Source Trait Q_1

Group	N	$\bar{X}$	S. D.
Stage 2	4	15.25	9.00
Stage 3	59	16.66	4.23
Stage 4	15	18.47	5.35
Total	78	16.94	4.71

TABLE 11.

Results of Analysis of Variance:
Differences between Kohlberg Stages, Source Trait Q_1

Source	S. S.	M. S.	D.F.	F	p
Groups	50.973	25.49	2	1.14	0.326
Error	1679.707	22.40	75		

TABLE 12.

Means and Standard Deviations:
Kohlberg Stages, Source Trait Q_2

Group	N	$\bar{X}$	S. D.
Stage 2	4	15.50	4.12
Stage 3	59	14.93	5.19
Stage 4	15	18.33	4.43
Total	78	15.62	5.10

TABLE 13.

Results of Analysis of Variance:
Differences between Kohlberg Stages, Source Trait Q_2

Source	S. S.	M. S.	D.F.	F	p
Groups	138.399	69.20	2	2.75	0.071
Error	1890.066	25.20	75		

indicates. It was concluded that degree of self-sufficiency (Q_2+) did not differentiate stages.

In summary it was found that of the source traits which related to the stages as described by Kohlberg only internal autonomy of thinking (M+) differentiated Stage 3 and Stage 4 subjects. Willingness to experiment (Q_1+) and self-sufficiency (Q_2+) did not. Consequently, Hypothesis I A.1. was accepted in part. Hypotheses I A.2. and I A.3. were rejected.

Personality Characteristics Traditionally Associated with Moral Development

Hypothesis II B.1. Subjects scoring in the higher stages of moral development will manifest a greater degree of emotional stability (C+) than lower stage subjects.

The mean scores of Stage 3 and Stage 4 subjects were almost identical. Contrary to expectation, Stage 2 subjects scored higher than either. (Table 14) Analysis of variance (Table 15) revealed no significant difference between stages. Results dictate that the hypothesis be rejected. It was concluded that subjects were not differentiated by the degree of emotional stability (C+) which characterized them.

Hypothesis II B.2. Subjects scoring in the higher stages of moral development will manifest a lesser degree of trust (L-) than lower stage subjects.

As Table 16 reports, Stage 2 subjects scored lowest on this trait. Stage 3 and Stage 4 subjects achieved virtually identical

TABLE 14.

Means and Standard Deviations:
Kohlberg Stages, Source Trait C

Group	N	$\overline{X}$	S. D.
Stage 2	4	26.75	6.13
Stage 3	59	22.12	6.37
Stage 4	15	22.27	5.16
Total	78	22.38	6.12

TABLE 15.

Results of Analysis of Variance:
Differences between Kohlberg Stages, Source trait C

Source	S. S.	M. S.	D.F.	$\underline{F}$	p
Groups	80.609	40.30	2	1.06	0.350
Error	2841.856	37.89	75		

TABLE 16.

Means and Standard Deviations:
Kohlberg Stages, Source Trait L

Group	N	$\bar{X}$	S. D.
Stage 2	4	11.75	2.06
Stage 3	59	14.00	4.56
Stage 4	15	14.60	5.36
Total	78	14.00	4.59

TABLE 17.

Results of Analysis of Variance:
Differences between Kohlberg Stages, Source Trait L

Source	S. S.	M. S.	D.F.	F	p
Groups	25.648	12.82	2	0.59	0.555
Error	1620.352	21.60	75		

scores. Differences between group means were not found to be significantly different by the analysis of variance (Table 17). These results dictate that the hypothesis be rejected. It was concluded that stages were not differentiated by the degree of trust (L-) that characterized them.

Hypothesis II B.3. Subjects scoring in the higher stages of moral development will manifest a lesser degree of self-assuredness (O-) than lower stage subjects.

Stage 2 subjects, as predicted, scored highest on this trait (Table 18). Contrary to prediction, Stage 4 subjects scored higher than Stage 3 subjects. Results of the analysis of variance (Table 19) show that differences between groups were not significant. Consequently, the hypothesis was rejected. It was concluded that stages were not differentiated by the degree of self-assuredness (O-) which characterized them.

Hypothesis II B.4. Subjects scoring in the higher stages of moral development will manifest a lesser degree of source trait Q_4 (tenseness) than lower stage subjects.

Mean scores (Table 20) of Stage 3 and Stage 4 subjects were almost the same. Stage 2 subjects, contrary to prediction, scored lower than either of these groups. Analysis of variance (Table 21) showed no significant difference between groups, however. These results dictate that the hypothesis be rejected. It was concluded that stages were not differentiated by the degree of tension (Q_4) which characterized them.

TABLE 18.

Means and Standard Deviations:
Kohlberg Stages, Source Trait O

Group	N	$\bar{X}$	S. D.
Stage 2	4	18.25	3.86
Stage 3	59	16.64	6.56
Stage 4	15	17.87	7.59
Total	78	16.96	6.57

TABLE 19.

Results of Analysis of Variance:
Differences between Kohlberg Stages, Source Trait O

Source	S. S.	M. S.	D.F.	F	p
Groups	24.875	12.44	2	0.28	0.757
Error	3344.012	44.59	75		

TABLE 20.

Means and Standard Deviations:
Kohlberg Stages, Source Trait Q_4

Group	N	$\bar{X}$	S. D.
Stage 2	4	13.50	3.42
Stage 3	59	20.29	7.83
Stage 4	15	20.93	6.47
Total	78	20.06	7.48

TABLE 21.

Results of Analysis of Variance:
Differences between Kohlberg Stages, Source Trait Q_4

Source	S. S.	M. S.	D.F.	F	p
Groups	18.664	93.32	2	1.67	0.195
Error	4182.039	55.76	75		

Hypothesis II B.5. Subjects scoring in the higher stages of moral development will manifest a higher degree of conscientiousness (G+) than lower stage subjects.

Table 22 reports mean scores. Contrary to prediction, Stage 2 subjects scored higher than either of the other groups on this trait. Stage 3 subjects scored lower than Stage 4 subjects. An analysis of variance (Table 23) revealed no significant differences between groups and dictated that the hypothesis be rejected. It was concluded that stages were not differentiated by the degree of conscientiousness (G+) which characterized them.

Hypothesis II B.6. Subjects scoring in the higher stages of moral development will manifest a higher degree of strength of self-sentiment (Q_3+) than lower stage subjects.

Results in Table 24 show that mean scores of groups differed in the opposite direction than predicted. Because the analysis of variance (Table 25) revealed no significant differences between groups, the hypothesis was rejected. It was concluded that stages were not differentiated by the strength of self-sentiment (Q_3+) which characterized them.

In summary, it was found that none of the source traits describing personality characteristics traditionally related to moral development differentiated the major stages.

TABLE 22.

Means and Standard Deviations:
Kohlberg Stages, Source Trait G

Group	N	$\bar{X}$	S. D.
Stage 2	4	18.50	8.23
Stage 3	59	17.10	5.55
Stage 4	15	17.93	4.91
Total	78	17.33	5.48

TABLE 23.

Results of Analysis of Variance:
Differences between Kohlberg Stages, Source Trait G

Source	S. S.	M. S.	D.F.	F	p
Groups	14.012	7.01	2	0.23	0.798
Error	2325.324	31.00	75		

TABLE 24.

Means and Standard Deviations:
Kohlberg Stages, Source Trait Q_3

Group	N	$\bar{X}$	S. D.
Stage 2	4	21.25	4.19
Stage 3	59	19.07	4.63
Stage 4	15	17.13	5.15
Total	78	18.81	4.72

TABLE 25.

Results of Analysis of Variance:
Differences between Kohlberg Stages, Source Trait Q_3

Source	S. S.	M. S.	D.F.	F	p
Groups	69.902	34.95	2	1.57	0.215
Error	1670.215	22.27	75		

Personality Traits Related to Preconditions of Moral Development

Hypothesis II C.1. Subjects scoring in the higher stages of moral development will manifest a greater degree of outgoingness (A+) than lower stage subjects.

Results in Table 26 indicate that, as predicted, Stage 2 subjects scored lowest on this trait. Stage 4 subjects scored lower, however, than Stage 3 subjects. Analysis of variance (Table 27) showed no significant differences between groups. As a result, the hypothesis was rejected. It was concluded that stages were not differentiated by degree of participating outgoingness (A+) which characterized them.

Hypothesis II C.2. Subjects scoring in the higher stages of moral development will manifest a greater degree of assertiveness (E+) than lower stage subjects.

Results in Table 28 indicate that, as predicted, the mean score of Stage 4 subjects was highest. Stage 3 subjects scored only slightly higher than Stage 2 subjects, again in the predicted direction. Analysis of variance (Table 29) showed no significant differences between groups, however. As a result the hypothesis was rejected. It was concluded that stages were not differentiated by degree of assertiveness (E+) which characterized them.

Hypothesis II C.3. Subjects scoring in the higher stages of moral development will manifest a higher degree of enthusiasm (F+) than lower stage subjects.

The results given in Table 30 indicate that scores varied in

TABLE 26.

Means and Standard Deviations:
Kohlberg Stages, Source Trait A

Group	N	$\bar{X}$	S. D.
Stage 2	4	14.25	6.08
Stage 3	59	18.15	4.65
Stage 4	15	17.27	3.43
Total	78	17.78	4.51

TABLE 27.

Results of Analysis of Variance:
Differences between Kohlberg Stages, Source Trait A

Source	S. S.	M. S.	D.F.	F	p
Groups	61.984	30.99	2	1.52	0.225
Error	1527.313	20.36	75		

TABLE 28.

Means and Standard Deviations:
Kohlberg Stages, Source Trait E

Group	N	$\bar{X}$	S. D.
Stage 2	4	19.00	8.04
Stage 3	59	19.41	5.41
Stage 4	15	21.67	5.77
Total	78	19.82	5.57

TABLE 29.

Results of Analysis of Variance:
Differences between Kohlberg Stages, Source Trait E

Source	S. S.	M. S.	D.F.	F	p
Groups	63.914	31.96	2	1.02	0.367
Error	2357.574	31.43	75		

TABLE 30.

Means and Standard Deviations:
Kohlberg Stages, Source Trait F

Group	N	$\bar{X}$	S. D.
Stage 2	4	20.75	1.89
Stage 3	59	22.53	5.46
Stage 4	15	23.40	4.19
Total	78	22.60	5.08

TABLE 31.

Results of Analysis of Variance:
Differences between Kohlberg Stages, Source Trait F

Source	S. S.	M. S.	D.F.	F	p
Groups	23.613	11.81	2	0.45	0.642
Error	1987.066	26.49	75		

the predicted direction. Analysis of variance (Table 31), however, found no significant differences between groups. As a result, the hypothesis was rejected. It was concluded that enthusiasm or the lack of it did not differentiate stages.

Hypothesis II C.4. Subjects scoring in the higher stages of moral development will manifest more venturesomeness (H+) than lower stage subjects.

Results in Table 32 show that scores varied, though slightly, in the predicted direction. Analysis of variance (Table 33) revealed no significant differences between groups, however. Consequently, the hypothesis was rejected. It was concluded that stages were not differentiated by the degree of venturesomeness (H+) which characterized them.

Hypothesis II C.5. Subjects scoring in the higher stages of moral development will manifest significantly less emotional sensitivity (I-) than lower stage subjects.

Table 34 indicates that group means varied in the opposite direction than predicted. The difference between Stage 3 and Stage 4 subjects was the greatest. However, analysis of variance did not reveal significant differences between groups (Table 35). Thus the hypothesis is rejected. It was concluded that stages were not differentiated by the degree of emotional sensitivity (I-) which characterized them.

Hypothesis II C.6. Subjects scoring in the higher stages of

TABLE 32.

Means and Standard Deviations:
Kohlberg Stages, Source Trait H

Group	N	$\bar{X}$	S. D.
Stage 2	4	19.25	5.62
Stage 3	59	21.08	8.05
Stage 4	15	21.47	7.63
Total	78	21.06	7.75

TABLE 33.

Results of Analysis of Variance:
Differences between Kohlberg Stages, Source Trait H

Source	S. S.	M. S.	D.F.	F	p
Groups	15.617	7.81	2	0.13	0.882
Error	4673.063	62.31	75		

TABLE 34.

Means and Standard Deviations:
Kohlberg Stages, Source Trait I

Group	N	$\bar{X}$	S. D.
Stage 2	4	10.25	4.99
Stage 3	59	19.59	5.46
Stage 4	15	23.13	5.71
Total	78	20.26	5.56

TABLE 35.

Results of Analysis of Variance:
Differences between Kohlberg Stages, Source Trait I

Source	S. S.	M. S.	D.F.	F	p
Groups	154.152	77.08	2	2.56	0.084
Error	2256.723	30.09	75		

moral development will manifest significantly greater social awareness (N+) than lower stage subjects.

Results in Table 36 indicate that mean scores of all groups were about the same. Analysis of variance (Table 37) did not, therefore, find significant differences between groups. The hypothesis was therefore rejected. It was concluded that stages were not differentiated by the degree of social awareness (N+) which characterized them.

In summary, it was found that, while all of the traits related to the preconditions for moral development except N and I did vary in the predicted direction to some extent, none varied greatly enough to differentiate stages significantly.

Section Three:
Source Traits and Their Bearing on the Relationship between Moral Development and Integrative Complexity

The purpose of this segment of the study was to investigate how non-cognitive personality factors might relate to the anticipated non-mutual nature of the relationship between moral development and integrative complexity. Since a high level of cognitive development is a necessary but not sufficient condition for high level moral judgment, it was expected that not all subjects in the higher complexity levels would achieve the higher Kohlberg stages.

Results reported earlier in this chapter (page 69) indicate that this expectation was a valid one. These results also indicate that, contrary to prediction, subjects scoring low in complexity did manage to score high in moral development. In fact, more low than high

TABLE 36.

Means and Standard Deviations:
Kohlberg Stages, Source Trait N

Group	N	$\overline{X}$	S. D.
Stage 2	4	12.50	3.42
Stage 3	59	12.58	4.01
Stage 4	15	12.07	4.85
Total	78	12.47	4.08

TABLE 37.

Results of Analysis of Variance:
Differences between Kohlberg Stages, Source Trait N

Source	S. S.	M. S.	D.F.	F	p
Groups	3.105	1.55	2	0.09	0.914
Error	1294.344	17.26	75		

complexity subjects scored high in moral development.

The question arose whether non-cognitive personality traits bore any relationship to these discrepancies. Several one-way analyses of variance were done to attempt to respond to this question. The results are presented below.

High Complexity - Low Moral Development

The group scoring high in complexity and low in moral development was compared with the group scoring high on both complexity and moral development. The results in Table 38 indicate that high complexity/low Kohlberg subjects manifested a lower degree of internal autonomy of thinking (M+). An analysis of variance (Table 39) proved this difference to be significant. A Scheffé test (Table 40) confirmed this finding. It was concluded that degree of internal autonomy of thinking did not differentiate these groups. Results in Tables 41 and 43 indicate that subjects in this group were less assertive (E+) and more socially conscious than subjects high in both complexity and moral development. However, these traits did not differentiate the groups significantly, as the analyses of variance in Tables 42 and 44 indicate. Differences were great enough, however, to suggest further study.

High Moral Development - Low Complexity

The group scoring low in complexity but scoring unexpectedly high in moral development was compared to the group scoring predictably low in both variables. Table 45 indicates that low complexity subjects

TABLE 38.

Means and Standard Deviations:
High Complexity/High and Low Kohlberg, Source Trait M

Group	N	$\bar{X}$	S.D.
High Kohlberg/High complexity	4	24.75	3.86
Low Kohlberg/High complexity	17	18.00	4.73
Total	21	19.29	5.25

TABLE 39.

Results of Analysis of Variance:
High Complexity/High and Low Kohlberg, Source Trait M

Source	S. S.	M. S.	D.F.	F	p
Between groups	147.543	147.543	1	6.960	0.016
Within groups	402.750	21.197	19		

TABLE 40.

Probability Matrix for Scheffé Multiple Comparison of Means

	High Kohlberg/ High Complexity	Low Kohlberg/ High Complexity
High Kohlberg/High Complexity	1.0000	0.0162
Low Kohlberg/High Complexity	0.0162	1.0000

TABLE 41.

Means and standard deviations:

High complexity/high and low Kohlberg, source trait E

Group	N	$\bar{X}$	S. D.
High Kohlberg/High complexity	4	22.75	5.32
Low Kohlberg/High complexity	17	17.06	5.19
Total	21	18.14	5.57

TABLE 42.

Results of analysis of variance:

High complexity/high and low Kohlberg, source trait E

Source	S. S.	M. S.	D.F.	F	p
Between groups	104.879	104.879	1	3.864	0.064
Within groups	515.695	27.142	19		

TABLE 43.

Means and standard deviations:

High complexity/high and low Kohlberg, source trait N

Group	N	$\bar{X}$	S. D.
High Kohlberg/High complexity	4	9.75	3.59
Low Kohlberg/High complexity	17	13.18	3.63
Total	21	12.53	3.79

TABLE 44.

Results of analysis of variance:

High complexity/high and low Kohlberg, source trait N

Source	S. S.	M. S.	D.F.	F	p
Between groups	38.017	38.017	1	2.898	0.102
Within groups	249.221	13.117	19		

who scored high in moral development were more sensitive (I+) than subjects low in both variables. Analysis of variance (Table 46) proved this difference to be significant. A Scheffé test (Table 47) confirmed the significance of this finding. Table 48 indicates that low complexity/high Kohlberg subjects possessed a greater degree of internal autonomy of thinking (M+) than low complexity/low Kohlberg subjects. Table 51 indicates that high Kohlberg/low complexity subjects were more self-sufficient (Q_2+) than subjects low in both variables. Analyses of variance (Tables 49 and 52) proved the differences to be significant in both cases. Scheffé tests (Tables 50 and 53) confirmed the significance of these findings.

High Moral Development - High/Low Complexity

A final question arose as to what traits might differentiate the group scoring high in moral development and low in complexity and the group scoring high on both variables.

The results of Tables 54 and 57 indicate that high Kohlberg/low complexity subjects were more guilt prone (O+) and tense (Q_4+) than subjects high in both variables. Analyses of variance (Tables 55 and 58)revealed the differences to be significant in both instances. Scheffé tests (Tables 56 and 59) confirmed the significance of the findings relative to source traits O and Q_4+.

Results in Table 60 indicate that high Kohlberg/low complexity subjects possessed lesser degrees of internal autonomy of thinking (M+) than subjects high in both complexity and moral development. Although an analysis of variance (Table 61) showed that the differences between

TABLE 45.

Means and standard deviations:
Low complexity/high and low Kohlberg, source trait I

Group	N	$\bar{X}$	S.D.
High Kohlberg/Low complexity	11	23.45	6.49
Low Kohlberg/Low complexity	33	18.58	5.22
Total	44	19.80	5.82

TABLE 46.

Results of analysis of variance:
Low complexity/high and low Kohlberg, source trait I

Source	S. S.	M. S.	D.F.	F	p
Between groups	1963.672	196.37	1	6.38	0.015
Within groups	1292.793	30.78	42		

TABLE 47.

Probability matrix for Scheffé multiple comparison of means

	High Kohlberg/ Low Complexity	Low Kohlberg/ Low Complexity
High Kohlberg/Low complexity	1.000	0.015
Low Kohlberg/Low complexity	0.015	1.000

TABLE 48.

Means and standard deviations:
Low complexity/High and low Kohlberg, source trait M

Group	N	$\bar{X}$	S.D.
High Kohlberg/Low complexity	11	20.36	3.96
Low Kohlberg/Low complexity	33	17.36	3.73
Total	44	18.11	3.92

TABLE 49.

Results of analysis of variance:
Low complexity/High and low Kohlberg, source trait M

Source	S. S.	M. S.	D.F.	F	p
Between groups	7425.000	74.25	1	5.18	0.03
Within groups	6021.836	14.34	42		

TABLE 50.

Probability matrix for Scheffé multiple comparison of means

	High Kohlberg/ Low Complexity	Low Kohlberg/ Low Complexity
High Kohlberg/Low Complexity	1.000	0.028
Low Kohlberg/Low Complexity	0.028	1.000

TABLE 51.

Means and standard deviations:
Low complexity/high and low Kohlberg, source trait Q_2

Group	N	$\bar{X}$	S.D.
High Kohlberg/Low Complexity	11	18.82	4.73
Low Kohlberg/Low Complexity	33	14.42	5.30
Total	44	15.52	5.40

TABLE 52.

Results of analysis of variance:
Low complexity/high and low Kohlberg, source trait Q_2

Source	S. S.	M. S.	D.F.	F	p
Between groups	1592.813	159.28	1	5.96	0.019
Within groups	1121.699	26.71	42		

TABLE 53.

Probability matrix for Scheffé multiple comparison of means

	High Kohlberg/ Low Complexity	Low Kohlberg/ Low Complexity
High Kohlberg/Low Complexity	1.000	0.019
Low Kohlberg/Low Complexity	0.019	1.000

TABLE 54.

Means and standard deviations:
High Kohlberg/high and low complexity, source trait O

Group	N	$\overline{X}$	S.D.
High Kohlberg/Low Complexity	11	20.09	7.44
High Kohlberg/High Complexity	4	11.75	4.03
Total	15	17.87	7.59

TABLE 55.

Results of analysis of variance:
High Kohlberg/high and low complexity, source trait O

Source	S. S.	M. S.	D.F.	F	p
Between groups	204.074	204.074	1	4.409	0.053
Within groups	601.664	46.282	13		

TABLE 56.

Probability matrix for Scheffé multiple comparison of means

	High Kohlberg/ Low Complexity	High Kohlberg/ High Complexity
High Kohlberg/Low Complexity	1.000	0.056
High Kohlberg/High Complexity	0.056	1.000

TABLE 57.

Means and standard deviations:
High Kohlberg/high and low complexity, source trait Q_4

Group	N	$\bar{X}$	S.D.
High Kohlberg/Low Complexity	11	23.45	5.03
High Kohlberg/High Complexity	4	14.00	4.90
Total	15	20.93	6.47

TABLE 58.

Results of analysis of variance:
High Kohlberg/high and low complexity, source trait Q_4

Source	S. S.	M. S.	D.F.	F	p
Between groups	262.211	262.211	1	10.497	0.006
Within groups	324.731	24.979	13		

TABLE 59.

Probability matrix for Scheffé multiple comparison of means

	High Kohlberg/ Low Complexity	High Kohlberg/ High Complexity
High Kohlberg/Low Complexity	1.000	0.007
High Kohlberg/High Complexity	0.007	1.000

TABLE 60.

Means and standard deviations:
High Kohlberg/high and low complexity, source trait M

Group	N	$\bar{X}$	S.D.
High Kohlberg/Low Complexity	11	20.36	3.96
High Kohlberg/High Complexity	4	24.75	3.86
Total	15	21.53	4.29

TABLE 61.

Results of analysis of variance:
High Kohlberg/high and low complexity, source trait M

Source	S. S.	M. S.	D.F.	F	p
Between groups	56.441	56.441	1	3.645	0.076
Within groups	201.297	15.484	13		

between groups was not significant, the difference was great enough to suggest the plausibility of further study.

Summary of Findings

The following is a list of the findings of this study:

Analysis of Relationship between Moral Judgment and Integrative Complexity

Hypothesis Ia. Subjects scoring in the higher stage of moral development will also score in the higher level of complexity. -- Rejected.

Hypothesis Ib. Subjects scoring in the low level of complexity will not score in the higher stage of moral development. -- Rejected

Characteristics of Stages as Described by Kohlberg

Hypothesis II A.1. Subjects scoring in the higher stages of moral development will manifest a significantly greater degree of internal autonomy of thinking (M+) than lower stage subjects. -- Accepted in part

Hypothesis II A.2. Subjects scoring in the higher stages of moral development will manifest a significantly greater degree of willingness to experiment (Q_1+) than lower stage subjects. -- Rejected

Hypothesis II A.3. Groups scoring in the higher stages of moral development will manifest a significantly greater degree of self-sufficiency (Q_2+) than lower stage groups. -- Rejected

Personality Characteristics Traditionally Associated with Moral Development

Hypothesis II B.1. Subjects scoring in the higher stages of moral development will manifest a greater degree of emotional stability (C+) than lower stage subjects. -- Rejected

Hypothesis II B.2. Subjects scoring in the higher stages of moral development will manifest a lesser degree of trust (L-) than lower stage subjects. -- Rejected

Hypothesis II B.3. Subjects scoring in the higher stages of moral development will manifest a lesser degree of self-assuredness (O-) than lower stage subjects. -- Rejected

Hypothesis II B.4. Subjects scoring in the higher stages of moral development will manifest a lesser degree of source trait Q_4 (tenseness) than lower stage subjects. -- Rejected

Hypothesis II B.5. Subjects scoring in the higher stages of moral development will manifest a higher degree of conscientiousness (G+) than lower stage subjects. -- Rejected

Hypothesis II B.6. Subjects scoring in the higher stages of moral development will manifest a higher degree of strength of self-sentiment (Q_3+) than lower stage subjects. -- Rejected

Personality Traits Related to Preconditions of Moral Development

Hypothesis II C.1. Subjects scoring in the higher stages of moral development will manifest a greater degree of outgoingness (A+) than lower stage subjects. -- Rejected

Hypothesis II C.2. Subjects scoring in the higher stages of moral development will manifest a greater degree of assertiveness (E+) than lower stage subjects. -- Rejected

Hypothesis II C.3. Subjects scoring in the higher stages of moral development will manifest a higher degree of enthusiasm (F+) than lower stage subjects. -- Rejected

Hypothesis II C.4. Subjects scoring in the higher stages of moral development will manifest more venturesomeness (H+) than lower stage subjects. -- Rejected

Hypothesis II C.5. Subjects scoring in the higher stages of moral development will manifest significantly less emotional sensitivity (I-) than lower stage subjects. -- Rejected

Hypothesis II C.6. Subjects scoring in the higher stages of moral development will manifest significantly greater social awareness (N+) than lower stage subjects. -- Rejected

Relationship between Moral Development, Integrative Complexity and Source Traits

In the final segment of the study, several source traits were found to be significantly related to the differences between groups. The results are summarized in Table 62. In each of the pairings the top listed group had the higher source trait score.

TABLE 62.

Summary of Results:
Interrelationships between Moral Development,
Integrative Complexity and Source Traits

High Kohlberg/high complexity scores versus Low Kohlberg/high complexity scores	Source Trait M
High Kohlberg/low complexity scores versus Low Kohlberg/low complexity scores	Source Traits I, M, Q_2
High moral judgment/low complexity score versus High moral judgment/high complexity scores	Source Traits O and Q_4

Discussion of the findings reported in this chapter will follow in Chapter V.

CHAPTER V

SUMMARY, DISCUSSION AND CONCLUSION

Sampling from a population of students from a small liberal arts college and a community college, this investigation was undertaken in an attempt to answer the general research question: Can a study of the relationship of personality characteristics of persons at different stages of moral development help increase the understanding of these stages or suggest areas of further investigation which might promise such added understanding? Three aspects of this question were studied: the relationship of the cognitive factor of integrative complexity as described by Schroder to Kohlberg's stages of moral development; the relationship of non-cognitive factors described by Cattell's source traits to the Kohlberg stages; and the interrelationship between integrative complexity, Cattell's source traits and the stages of moral development.

Integrative Complexity and Moral Development

The purpose of this portion of the study was to examine the relationship between moral development and the cognitive personality factor, integrative complexity. It had been expected that, like other cognitive factors, e.g., intelligence, a high level of integrative complexity would be necessary to achieve a high level of moral development. It was also predicted that low complexity subjects would not score high in moral development. The analysis of the relationship between complexity and Kohlberg stages indicated that this cognitive personality

characteristic did not bear the kind of relationship to stages of moral development that had been expected. It was concluded that, contrary to expectations, a high level of integrative complexity was not related to achieving the higher level of moral development. It was further concluded that low complexity did not prevent subjects from achieving the higher stage of moral development.

This segment of the study was limited by the lack of opportunity to include post-conventional subjects in the sample. Hence, it can be concluded only that level of cognitive complexity failed to differentiate subjects within the conventional level of moral development. It is suggested that a similar comparison be made between integrative complexity and Kohlberg responses in a sample which includes post-conventional subjects. It is also recommended that such a study strive to include more subjects at the pre-conventional level.

Even within the limits of this study, what is suggested is not necessarily that integrative complexity is not at all related to stages of moral development but that it may not be related in the same way that other cognitive factors are. In other words, what may be significant in the relationship of complexity to moral development is not the intellectual dimension of abstraction but personality characteristics like rigidity/flexibility. It may be asked, for instance, whether the fact that so many Stage 4 subjects had low complexity scores reflects the more rigid thinking of Stage 4 subjects who are described as categorical, looking to the rule for solutions to moral dilemmas. If this were true, it would contribute an important understanding of this stage.

Low complexity in Stage 4 subjects may contribute to stabilization at this stage on the part of some adults. Would it be possible, for instance, that high complexity in a Stage 4 individual may be an indicator that the person is moving through the stage, whereas low complexity may point to likely stabilization at this stage? If this proved to be the case, what might be indicated is the need to include in a program designed to increase moral development a segment aimed at increasing capacity for integrative complexity.

Source Traits and Moral Development

The purpose of this portion of the study was to study the relationship between stages of moral development and non-cognitive aspects of personality. Three aspects of this relationship were investigated: the relationship between moral development and source traits which corresponded to Kohlberg's description of the stages; the relationship between moral development and the personality characteristics traditionally related to moral development; and the relationship between moral development and traits related to preconditions of moral stage development.

Kohlberg's Description of Stages

Analyses of the relationship between moral development and traits descriptive of the Kohlberg stages indicated that degree of internal autonomy of thinking (M+) significantly differentiated Stage 3 abd Stage 4 subjects. Whether degree of internal autonomy of

thinking differentiates post-conventional subjects from the others remains to be investigated.

How this factor operates and what exactly are its implications remains a topic for further study. Drevdahl (1956) and Cattell and Drevdahl (1955) found M+ to distinguish creative researchers and artists from administrators and teachers. Implied here is a link with creativity. Suggested is a study relating measures of creativity and moral development.

At present it is hypothesized (Cattell, Eber and Tatsuoka, 1970) that M+ is a temperamental, partly constitutional, neurological capacity to split off ideas and memories from ongoing sensory inputs. If this is accurate, then what may be implied is that moral stage development depends to some extent on temperamental and constitutional factors. As such, source trait M may describe an essential aspect of stage development.

Behaviorally, M+ individuals have been observed (Cattell and Stice, 1953) to feel unaccepted in groups. They express dissatisfaction with group unity and procedure. Their suggestions, considered partly impractical, tend to be rejected. What might be looked into in a future study is the group behavior of persons representing the various stages. If higher Kohlberg stages did prove to be less effective in group interaction, what might be suggested is that such persons may need to develop interpersonal skills if they are to be able to share their more developed thinking successfully with others.

Further analysis revealed that willingness to experiment (Q_1+) did not significantly distinguish stages. This finding may be due in large part to the narrow range of stages which the sample reflected. Since Stage 3 and 4 subjects are within the conventional level, the lack of a significant difference between them on this trait was not totally surprising. The fact that scores did vary in the predicted direction suggests that a greater difference may be found between conventionals and post-conventionals. Consequently, a comparison between these levels relative to source trait Q_1 may prove fruitful.

Self-sufficiency (Q_2+) also did not differentiate stages significantly, although the degree to which Stage 3 and Stage 4 subjects varied suggests that further investigation into the relationship of this trait to these stages may be warranted. It also seems plausible that further investigation might find this trait to differentiate conventional from non-conventional individuals. If this were found to be so, there would be one more indication that higher stage individuals may have trouble sharing their ideas with others, since behaviorally (Cattell and Stice, 1953) it has been observed that Q_2+ persons are dissatisfied with group integration and tend to be rejected.

Ego Strength and "Character"

Analysis of the relationship between moral development and personality characteristics traditionally related to it indicated that traits which described ego strength did not differentiate stages. The analysis of data did not reveal a significant difference

between groups on measures of "character" either. The fact that source trait G+ (conscientiousness) did not differentiate Stages 3 and 4 may be explained by the conventional quality of both stages.

Strength of self-sentiment (Q_3) varied in the opposite direction than predicted. One possible interpretation is that self-sentiment here represents concern for how one looks in the eyes of others. Suggested is the need to compare scores on this scale with measures of self-concept, an area of investigation in moral development recommended by Graham (1972).

In general, the findings of this portion of the study suggest that certain concepts traditionally used in moral evaluations, may not be appropriate in discussing progression in moral development.

Preconditions of Moral Development

Degree of sensitivity (I) did not differentiate groups. A trend appeared which deserves comment. Scores varied in the opposite direction to that predicted. The direction of the prediction was chosen because I+ persons tend to perform more poorly in groups that I- persons (Cattell and Stice, 1953) and effective group participation is considered essential to stage development (Kohlberg, 1969). The fact that Stage 3 subjects turned out to be less sensitive might reflect the tendency of this group (Cattell, Eber and Tatsuoka, 1970) to no-nonsense decisions which, although unimaginative, do consider the practical good of the group, a characteristic which could foster group popularity. Perhaps this

relates to the "good boy" wuality of Stage 3 persons. The higher I score of Stage 4 subjects is another indicator that this group might have difficulty in group relationships.

Relationship between Moral Development, Integrative Complexity and Source Traits

The purpose of this element of the study was to assess after the fact, so to speak, whether non-cognitive factors tended to shed any light on the discrepancies which emerged in the relationship between moral development and integrative complexity.

Source trait M+ (internal autonomy of thinking) once more emerged as important. It significantly differentiated high complexity subjects who achieved different levels of moral development. This discrepancy probably reflects the differences in Kohlberg scores as it did earlier in the comparison of stages. Consequently, the results do not necessarily add to the findings, except perhaps to reinforce the significance of this trait relative to stage differences.

Degree of assertiveness (E) and of social awareness (N) did not differentiate groups. A trend in scores did suggest that further study perhaps with a larger sample, may be warranted.

Source traits I+ (sensitivity) and Q_2+ (self-sufficiency) differentiated low complexity groups who achieved different stages of moral development. It will be recalled that both of these traits, although not significantly differentiating stages, did show enough variance between groups to suggest further investigation. The

findings of this section may suggest that among low complexity subjects these traits may more likely make a difference in whether a person achieves the higher stage of moral development.

Finally, the fact that source traits O+ (guilt proneness) and Q_4+ (tenseness) characterized subjects high in moral development and low in complexity suggests another relationship between moral development and complexity. Possibly some characteristic of lower complexity, perhaps the penchant for more rigid, absolutistic thinking, may conflict with the higher level moral judgment and contribute towards guilt and consequent tension. Research into this hypothesis could produce further understanding of guilt-related anxiety in persons who function at these levels of complexity and moral development.

Conclusion

Besides the specific conclusions considered above in the discussion of results, the study suggested some general reflections. First, the predominance of low scores on the measures of both moral development and integrative complexity hints at the possibility that segments of the general adult population are not functioning at optimal levels of these operations. This could have implications for educators and counselors who are designing developmental programs either for younger persons in the process of development or for older persons who may have stabilized at these lower levels.

Secondly, the fact that personality traits did not adequately differentiate moral stages may add to the questionableness of the reliability of the Kohlberg instrument in predicting moral behavior.

Thirdly, the finding that source trait scores in certain instances varied in the opposite direction than predicted suggested a re-evaluation of the Cattell traits to see if some of them make implications about healthy behavior which are biased by past conceptions of what successful coping in society entails.

Fourthly, the relationships which were suggested between complexity, moral judgment and non-cognitive factors may suggest additional variables of a cognitive nature for counselors to explore in their search to understand their clients' conflicts.

Lastly, this study tended to add to mounting evidence that the Paragraph Completion Test (Stewin, 1969) and the Moral Judgment Scale (Kurtines and Greif, 1974) are inadequate instruments which need reassessment if the important processes which they are intended to measure are to be adequately researched.

This study was admittedly limited. The range of Kohlberg stages in the sample was smaller than desired. Further investigations should strive to include a wider range of moral development scores. The scope of the personality survey permitted only broad considerations of the relationship between moral development and personality traits. Individual traits might be singled out and subjected to more specific study. Other constructs of complexity

and personality than those used in this study should be employed to investigate the role of personality in moral development. In short, much is still uncertain about the dimensions of moral development. As Rest, one of Kohlberg's closest colleagues concludes:

> What is certain is that much research is needed before the role of moral judgment in overall personality organization is clear. (Rest, 1974, p. 75)

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APPENDIX 1.

KOHLBERG'S MORAL JUDGMENT SCALE

I.D. Number _____

Age _____ Sex _____ Father's (or Mother's) Occupation _____

DECISION STORIES AND QUESTIONS

On the following pages you will find several stories, each of which is followed by some questions. The purpose of these stories and questions is to get at your opinions and ideas. Please write down all the ideas or feelings they bring to mind rather than giving "Yes" or "No" answers. Just writing "Yes" or "No" is definitely not an adequate answer. You should always give your reasons for your answer.

You are to write your answers in the spaces provided following each question. If you need more space you may write on the back of the page, but if you do, make sure you specify which question you are answering. You should be able to answer most of the questions in the space that is provided.

Remember that this is not a test in the usual sense. There are no right or wrong answers. There can only be different ideas and opinions about these stories. So, do not spend a long time thinking about how to answer any one question. Simply write down what your opinions and ideas are about it.

In Europe a woman was near death from a special kind of cancer. There was one drug that the doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist was charging ten times what the drug cost him to make. He paid $200 for the radium and charged $2,000 for a small dose of the drug. The sick woman's husband, Heinz, went to everyone he knew to borrow the money, but he could only get together about $1,000, which is half of what it cost. He told the druggist that his wife was dying and asked him to sell it cheaper or let him pay later. But the druggist said, "No, I discovered the drug and I'm going to make money from it." So Heinz got desperate and broke into the man's store to steal the drug for his wife.

Should Heinz have done that? Was it actually wrong or right? Why?

Is it a husband's duty to steal the drug for his wife if he can get it no other way? Would a good husband do it?

Did the druggist have the right to charge that much when there was no law actually setting a limit to the price? Why?

Answer the next two questions only if you think he should steal the drug.

If the husband does not feel very close or affectionate to his wife, should he still steal the drug?

Suppose it wasn't Heinz's wife who was dying of cancer but it was Heinz's best friend. His friend didn't have any money and there was no one in his family willing to steal the drug. Should Heinz steal the drug for his friend in that case? Why?

Answer the next two questions only if you think Heinz should not steal the drug.

Would you steal the drug to save your wife's life?

If you were dying of cancer but were strong enough, would you steal the drug to save your own life?

Everyone should answer the remaining question.

Heinz broke in the store and stole the drug and gave it to his wife. He was caught and brought before the judge. Should the judge send Heinz to jail for stealing or should he let him go free? Why?

Everyone should continue here.

The drug didn't work, and there was no other treatment known to medicine which could save Heinz's wife, so the doctor knew that she had only about 6 months to live. She was in terrible pain, but she was so weak that a good dose of a pain-killer like ether or morphine would make her die sooner. She was delirious and almost crazy with pain, and in her calm periods, she would ask the doctor to give her enough ether to kill her. She said she couldn't stand the pain and she was going to die in a few months anyway.

Should the doctor do what she asks and give her the drug that will make her die? Why?

Answer the following questions only if you think the doctor should not give her the drug.

Would you blame the doctor for giving her the drug?

What would have been the best for the woman herself, to have had her life for six months more in great pain or have died sooner? Why?

Some countries have a law that doctors could put away a suffering person who will die anyway. Should the doctor do it in that case?

Everyone should answer the remaining questions.

The doctor finally decided to kill the woman to put her out of her pain, so he did it without consulting the law. The police found out and the doctor was brought up on a charge of murder, even though they knew the woman had asked him. What punishment should the judge give the doctor? Why?

Would it be right or wrong to give the doctor the death sentence?

Do you believe that the death sentence should be given in some cases?

The law prescribes the death penalty for treason against the country. Do you think the death sentence should be given for treason? Why?

While all this was happening, Heinz was in jail for breaking in and trying to steal the medicine. He had been sentenced for ten years. But after a couple of years, he escaped from the prison and went to live in another part of the country under a new name. He saved money and slowly built up a big factory. He gave his workers the highest wages and used most of his profits to build a hospital for work in curing cancer. Twenty years had passed when a tailor recognized the factory owner as being Heinz, the escaped convict whom the police had been looking for back in his home town.

Should the tailor report Heinz to the police? Would it be right or wrong to keep it quiet? Why?

Is it a citizen's duty to report Heinz? Would a good citizen? Why?

If Heinz were a good friend of the tailor, would that make a difference? Why?

Should Heinz be sent back to jail by the judge? Why?

Joe is a 14-year-old boy who wanted to go to camp very much. His father promised him he could go if he saved up the money for it himself. So Joe worked hard at his paper route and saved up the $40 it cost to go to camp and a little more besides. But just before camp was going to start, his father changed his mind. Some of his friends decided to go on a special fishing trip, and Joe's father was short of the money it would cost. So he told Joe to give him the money he had saved from the paper route. Joe didn't want to give up going to camp, so he thought of refusing to give his father the money.

Should Joe refuse to give his father the money? Why?

Does his father have the right to tell Joe to give him the money? Why?

Does giving the money have anything to do with being a good son? Why?

Which is worse, a father breaking a promise to his son or a son breaking a promise to his father? Why?

Joe wanted to go to camp but he was afraid to refuse to give his father the money. So he gave his father $10 and told him that was all he made. He took the other $40 and paid for camp with it. He told his father the head of the camp said he could pay later. So he went off to camp, and the father didn't go on the fishing trip.

Before Joe went to camp, he told his older brother, Alexander, that he really made $50 and that he lied to his father and said he'd made $10. Alexander wonders whether he should tell his father or not.

Should Alexander, the older brother, tell their father that Joe had lied about the money or should he keep quiet about what Joe had done? Why?

Why would a teenager think he shouldn't tell on a friend or a brother?

Which is more important, being a loyal son or a loyal brother? Why?

If the father finds out, should he punish Joe for lying and going off with the money? Why?

Several years later, the grown up brothers had gotten into serious trouble. They were secretly leaving town in a hurry and needed money. Alex, the older one, broke into a store and stole $500. Joe, the younger one, went to a retired old man who was known to help people in town. Joe told the man that he was very sick and he needed $500 to pay for the operation. Really he wasn't sick at all, and he had no intention of paying the man back. Although the man didn't know Joe very well, he loaned him the money. So Joe and Alex skipped town, each with $500.

If you had to say who did worse, would you say Al did worse to break in the store and steal the $500 or Joe did worse to borrow the $500 with no intention of paying it back? Why?

Would you feel like a worse person stealing like Al or cheating like Joe? Why?

Why shouldn't someone steal from a store anyhow?

Who would feel worse, the storeowner who was robbed or the man who was cheated out of the loan? Why?

Which should the law be more harsh or strong against, stealing like Al or cheating like Joe? Why?

In Korea a company of Marines was 'way outnumbered and was retreating before the enemy. The company had crossed a bridge over a river, but the enemy were mostly still on the other side. If someone went back to the bridge and blew it up as the enemy were coming over it, it would weaken the enemy. With the head start the rest of the men in the company would have, they could probably then escape. But the man who stayed back to blow up the bridge would probably not be able to escape alive; there would be about a 4 to 1 chance he would be killed. The captain of the company has to decide who should go back and do the job. The captain himself is the man who knows best how to lead the retreat. He asks for volunteers, but no one will volunteer. If he goes himself, the men will probably not get back safely and he is the only one who knows how to lead the retreat.

Should the captain order a man to go on this very dangerous mission or should he go himself? Why?

Does the captain have the right to order a man if he thinks it best to? Why?

Which would be best for the survival of all the men, ordering a man or the captain going himself?

If he were absolutely certain that many more lives would be lost if he went himself and were killed, should he order another man to go against his will?

Would a man have the right to refuse such an order? Why?

The captain finally decided to order one of the men to stay behind. One of the men he thought of was one who had a lot of strength and courage but he was a bad trouble maker. He was always stealing things from the other men, beating them up and wouldn't do his work. The second man he thought of had gotten a bad disease in Korea and was likely to die in a short time anyway, though he was strong enough to do the job.

Should the captain send the trouble maker or the sick man? Why?

Who would it be fairer to send? Why?

Would it be fair to send the trouble maker as a punishment? Why?

Whose life would be worth more to the company? Why?

During the war in Europe, a city was often bombed by the enemy. So each man in the city was given a post he was to go to right after the bombing to help put out the fires the bombs started and to rescue people in the burning buildings. A man named Diesing was made the chief in charge of one fire engine post. The post was near where he worked so he could get there quickly during the day, but it was a long way from his home. One day there was a very heavy bombing and Diesing left the shelter in the place he worked and went toward his fire station. But when he saw how much of the city was burning, he got worried about his family. So he decided he had to go home first to see if his family was safe, even though his home was a long way off and the station was nearby and there was somebody assigned to protect his family's area.

Was it right or wrong for Diesing to leave his station to protect his family? Why?

Suppose Diesing were just a volunteer and wasn't paid, would that make a difference? Why?

Suppose other men were leaving for their families. Would that make a difference? Why?

Suppose it were against the law to leave one's post and only a few men besides Diesing did it. Should Diesing be punished? Why?

APPENDIX 2.

SCHRODER'S PARAGRAPH COMPLETION TEST

I.D. Number _____

Complete the following words or phrases in two or three sentences -- or more if you feel this is necessary.

1. "Rules . . ."

2. "When I am in doubt . . ."

3. "Confusion . . ."

4. "Parents . . ."

5. "When I am criticized . . ."

6. "When others criticize me it usually means . . ."